

INDIGENOUS ORGANIZATIONS AND DEVELOPMENT ORGANIZATIONS:
THE POLITICS OF CONSERVATION

by

JOSHUA M. McDANIEL

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2000

ACKNOWLEDGEMENTS

The people of Lomerio are recognized first for their patience, grace, and selflessness in helping me to complete this study. Families opened their homes and their lives to me, and allowed me to catch a short glimpse into what it means to be an indigenous person in contemporary South America. I will be forever grateful. I would like to thank the directors of CICOL especially for taking me in and showing me the ropes. Without them, I would have never learned as much as I did. President Juan Soquere was always willing to explain anything to me, and never tired of my questions. Secretary Agustin Chore worked with me in the CICOL archives. Vice-President Juan Chuve helped me with the survey, and also let me work with him in his fields.

In the community of San Lorenzo, the alcalde Sr. Lorenzo Soquere and the corregidor Sr. Esteban Chore are recognized for helping to get the community behind the project. Sr. Mario Suarez and Sra. Rosa Parapaino were always willing to help with any problem that arose. I would also like to send a special acknowledgement to Sr. Juan Surubi and the rest of "Los Chivos:" Sr. Pedro Salvatierra, Sr. Lucas Salvatierra, and Sr. Nicolas Chuve for sharing a lot of laughs and chicha with me. Sra. Maria Masai should be thanked for helping us make a new life in San Lorenzo. Sra. Maria Gausace deserves a special thanks for helping me with the survey. She was a great companion and a sharp observer of life in Lomerio. I would also like to recognize some of the other people from Lomerio who helped with the study: Sr. Juan Chuviru, Sr. Pablino Parapaino, and Sr. Miguel Garcia. Sr. Esteban QuiviQuivi taught me about the politics of indigenous life.

I would like to thank BOLFOR in general for making this study possible. BOLFOR gave me funding, a house to stay in, transportation, and access to Lomerio. Without this inspiring organization, this study would not have been completed. First, I would like to thank Todd and Nell Frederickson who always had a beer and a laugh waiting at the end of those bus rides, and who gave us a wonderful place to stay in the city. I would like to thank John Nittler, Raul Lobo, and Cristian Vallejos for helping with anything I needed, and all of the drivers technicians, and secretaries who worked tirelessly. From APCOB, I would like to thank Dr. Jurgen Riester, Leonardo Martinez, and Bernardo Roza for answering any questions I brought to them. My discussions with Leo and Bernardo were some of the most valuable that I had during my fieldwork.

Dr. Ricardo Godoy helped immensely with the project in terms of money, as well as suggestions on how to do fieldwork. My advisor Dr. Allan Burns provided an example of how to make anthropology meaningful to the people that are its subjects, without which I would have never kept going. I would like to thank Dr. Irma McClaurin for helping to make my dissertation more than I thought it could be. I thank Dr. Allyn Maclean Stearman for her inspiring work in Bolivia, and for her advice on fieldwork strategies and dissertation assistance. I would also like to thank Dr. Marianne Schmink and Dr. Clyde Kiker for helping to improve the writing of my dissertation.

Finally, I would like to thank my wife, Debbie Kennard, for her love, support, and mean peach cobbler during our time in Bolivia. Just trying to keep up with her made my work better and more enjoyable. Also, I thank Mom for giving me unconditional support through all of these years of graduate school.

TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGEMENTS	i
ABSTRACT	v
 CHAPTERS	
1 INTRODUCTION	1
Theoretical Perspective	7
Analytical Methodology: Institutional Analysis.....	11
Development in Bolivia: From Top-Down to Community-Based	13
Ecopolitics and Indigenous Politics	19
The Rise of Indigenous Political Organizations.....	20
Non-Governmental Organizations	26
The Study	28
Conclusion.....	37
 2 LOMERIO AND THE CHIQUITANOS	 39
Population	40
The Land.....	41
San Lorenzo: A Chiquitano Community.....	43
The Past.....	47
The Jesuit Missions	47
Secular Control Under the Crucenos.....	52
The Rubber Boom: The Beginning of El tiempo de esclavitud	53
The Twentieth Century.....	54
Recent History: The Struggle for Autonomy	56
The Daily Routine	58
Seasonal Round.....	63
Conclusion.....	71

3	CICOL AND DEVELOPMENT AGENTS: ORGANIZATION AND INTERACTION	72
	CICOL: A Grassroots Indigenous Organization	74
	The CICOL Directorate	80
	Institutional Objectives: Norms and Philosophy	86
	APCOB: An Indigenous Support Organization	90
	Organization and Structure	93
	Institutional Philosophy	95
	The Unavoidable Trap of Paternalism	97
	BOLFOR	102
	Organization and Structure	106
	Goals and Objectives	107
	Organizational Interactions: CICOL, APCOB, and BOLFOR	109
	Kollas and Cambas	109
	Facade-building	112
	Styles and Philosophy	115
4	COMMUNITY-BASED FORESTRY AND ECOLOGICAL CERTIFICATION IN LOMERIO	117
	Forestry Management	121
	Management Activities	123
	Community Benefits	125
	The Sawmill	130
	The "Transfer Problem"	132
	Production Problems	134
	Indigenous Management and the Market Economy	138
	Timber Certification	141
	Philosophy	142
	Procedure	143
	Standards	144
	Lingering Questions	145
	Certification in Lomerio	147
	Conclusions	153
5	An Institutional Approach to the Lomerio Forestry Project	156
	Institutional Analysis of Resource Management	156
	Lomerio and the Design Principles of Resource Institutions	160
	Community Forestry in Latin America	171
	Conclusions	177

6	Conclusions	181
	Indigenous Organizations	182
	Non-Governmental Organizations	184
	Community-Based Conservation	186
	Conclusion.....	188
	LIST OF REFERENCES	190
	BIOGRAPHICAL SKETCH.....	203

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

INDIGENOUS ORGANIZATIONS AND DEVELOPMENT ORGANIZATIONS:
THE POLITICS OF CONSERVATION

By

Joshua M. McDaniel

May 2000

Chairman: Allan F. Burns
Major Department: Anthropology

In the past few decades Latin America has encountered a couple of related developments that are transforming: 1) the relationships between indigenous peoples and the state, and 2) indigenous peoples ownership, use, and management of land and resources. The first development has been a wave of political organizing among indigenous communities. International linkages, national and regional confederations, and local, inter-communal organizations have proliferated across Central and South America. Secondly, there has been a swift rise in the number and influence of non-governmental organizations (NGOs), which have brought unprecedented financial support and political leverage to the struggles of indigenous people for land and autonomy.

This dissertation concerns development, natural resource management, and eco-politics in the Chiquitano communities of Lomerio in the eastern lowlands of Bolivia. I present findings from fieldwork from July, 1997, to August, 1998, on one grassroots indigenous organization, Central Intercommunal de Comunidades Originarias de Lomerio (CICOL), that has been involved in an internationally funded forestry project for over ten years.

Indigenous leaders are faced with the challenge of building organizations based on indigenous forms that are capable of advancing their interests in the non-indigenous world. I examine the relations between CICOL and a number of different development organizations that are working with the organization, focusing on the structure of indigenous organizations and the dynamic interplay between the institutions. I use a political ecology framework to examine the interactions between CICOL and the development organizations, linking these discussions with the analysis of institutional dynamics and development in Lomerio. I present conclusions regarding the foundation and nature of organizational conflicts in Lomerio, and provide recommendations to improve forestry project management.

CHAPTER I INTRODUCTION

This dissertation concerns development, natural resource management, and eco-politics among the Chiquitano Indians of the southeastern Bolivian lowlands. In it, I take up issues of continued importance in applied anthropology: the strengths and weaknesses of community-based conservation, the rise in influence of non-governmental organizations (NGOs), and the growth and resilience of indigenous political organizations in South America. All of these issues are presented in the context of an internationally-funded community forestry project that the Chiquitanos have been involved with since 1986.

The Chiquitanos are descendants of Indians who lived in the Jesuit missions of the 1600s and 1700s. They make a living primarily from farming, raising cattle, and hunting and collecting in the forest. They have been affected for centuries by the boom and bust nature of Bolivia's relation to the global economy. They have been taken to the Bolivian highlands where they mined silver for colonial Spain, to the Amazon to harvest rubber in the Amazon, and to Paraguay where they were forced to fight a bloody war for control of oil fields. Today, they are at the center of an international effort to promote the sustainable use of forest resources. In exchange, they receive unprecedented levels of financial and political support in their efforts to secure title to their land and promote the long-term economic development of their communities.

This study focuses on that point of interaction between the national and international agents of conservation/development (e.g. the NGOs) and the Chiquitanos. Organizations, both indigenous and western, are the focus of much of the following discussion. I wanted to know how the Chiquitanos are organizing their political institutions to confront new opportunities and challenges. Typical political culture in indigenous communities is part of a seamless continuity between represented and representatives. Decisions are made based on consensus, and authority figures have little individual power (Kearney 1996). Political authority is often embedded in communal religious rituals and symbolism. These new organizations, however, have to work with government agencies, NGOs, and other political forms that use Western, European organization: parliamentary decision-making, chains of command, and division of labor (Kearney 1996). Indigenous leaders are faced with constructing organizations based on indigenous forms that are capable of advancing their interests in the non-indigenous world.

I wanted to see how the Chiquitanos were approaching this problem. Did they attempt to confront the other institutions with a mask of Western organization? Did they create a synthesis of forms, or did they just attempt to mimic the organizations that they were trying to influence? Indigenous groups throughout South America are becoming much more politically astute in how they assert themselves and their interests. Understanding the process and the shapes that these efforts are taking is essential to creating political and cultural space for indigenous peoples in the coming decades.

I also wanted to know what role the non-governmental agencies were taking in the development process. One of the key factors in the growth of community-based

conservation projects throughout the tropics, has been the complimentary growth in NGOs that provide technical, financial, political, legal, and organizational support. After decades of public mismanagement and corruption, international donors have increasingly turned from public agencies to NGOs as more effective agents for conservation and development (Meyer 1993:192). For the year 1994 in Central America, around 4,000 NGOs received \$350 million in reported funds (L. MacDonald 1995:31). This shift in funds began in the 1980s, and since then aid to NGOs has grown five times the growth in aid to government led development projects (L. MacDonald 1995:31). The sheer number of NGOs and the wealth of aid funds they are receiving begs our attention.

My research questions focused specifically on the exact nature of changes that are being produced by this shift in development strategy and focus. Grassroots organizations that begin to work with NGOs can become dependent on them for resources and funding (Esman and Uphoff 1984). This dependency can lead to impositions on the part of the NGOs: new organizational structures, increased internal conflicts, and expenditures of time and energy on NGO objectives rather than their own (Silberberg 1997; Bratton 1990). I wanted to know how Chiquitanos have responded to the growth in the complexity and funding of the project that they have been managing. Have the goals of the funders and their agents, the NGOs, become the objectives of the organization? If not, how have the NGOs managed to avoid the trap of paternalism that has become the norm in so many development projects? Are the NGOs accountable to the Chiquitanos, the people that they are supposed to help? How have the Chiquitanos managed to maintain their autonomy in such a financially unequal relationship?

Development has a long, checkered history in Bolivia, and I was observing in what was supposed to be a new era: participatory methodologies and decentralized funding and planning. I wanted to know how the new ways of talking about development were translating into action at the ground level. Was it new rhetoric camouflaging old habits, or had a fundamental shift in philosophy, strategy, and organization occurred? Also, if a change had occurred, was the new style effective? I spent a great deal of time "studying up" as Robin Wright (1988:384) has termed research oriented to evaluate bureaucracies and development ideologies. Understanding how development and NGO policies affected the Chiquitanos necessitated time spent with the NGOs attempting to clarify the aspects of their structure, methods, and philosophies that were the most important.

A definition of development and my perspective on anthropology's role in the process is needed at this point. Development in the modern era has been an attempt to replicate the conditions in Africa, Asia, and Latin America that have supposedly already occurred in more economically advanced nations: industrialization, increased dependence on technology, urbanization, and the adoption of principles of individuality (Escobar 1997:498). The goals of development have actually produced the exact opposite of their intention—increased poverty and environmental destruction (Wright 1988:382). Since much of the work of anthropologists takes place in a development context, it has become a problematic issue for the discipline. On the one hand, anthropologists and other social scientists have been instrumental in designing development projects that are socially relevant and culturally appropriate (Cernea 1995; Horowitz 1995). On the other hand, anthropologists have been severely criticized for their role in promoting the worst aspects

of development and actually working within what, in light of its results, can only be viewed as a manifestation of neo-colonial ideology (Escobar 1991, 1997; Crush 1995). For anthropologists working closely with local communities the "dilemma" of development is whether to get involved or not. Do you reject development entirely as Arturo Escobar (1991) has suggested, or do you work from within to change how development is practiced?

For me, the question is answered by people at the community or local level and their acceptance or resistance to development goals and practices. Most Chiquitanos are clearly in favor of development. They are actively seeking development funding and projects. They want improved health care, educational opportunities, and increased productive potential from their resource base. This is not dissimilar to what many development practitioners are trying to accomplish. In cases where people are looking to development as a means to improve their lives, the role of anthropologist can become that of "culture broker," translating back and forth between those with the needs and interests and those with resources.

Ethnographic inquiry can elicit types of information unavailable from survey, questionnaire, or rapid rural appraisal. Participant observation can also reveal the internal dynamics of a community, provide the type of information that can determine the best ways to strengthen local institutions, and uncover traditional resource management techniques (Anderson 1996). Participant observation can be used to gather local knowledge. This information has the potential to be a valuable asset in empowering the community and in reviving traditional resource management patterns (DeWalt 1994). Infusing contemporary models of resource management with traditional resource

management techniques creates a system that more clearly fits the local context (Zerner 1993; McDaniel 1997). Anthropologists can help in exploring the complementary nature of indigenous and scientific knowledge systems (DeWalt 1994).

My personal view of anthropologists' role in development is as promoters of self-determination. In most cases this involves seeking to understand how cultural traditions can be the basis for new, more locally relevant models of development (Redford and Padoch 1992; Reed 1997). Anthropology should promote development that uses local knowledge and natural resources in a way aimed at gaining long-term self-sufficiency and autonomy (Posey 1996). The anthropologist can play a vital role in defending the legal rights of local people to their land and resources. Obstacles to development are immense, but as long as development is proceeding in a manner that at least attempts to respond to local needs and desires, anthropologists can and should play an active role.

I introduce Lomerio and Chiquitano culture in chapter 2. The chapter describes the historical background of Lomerio, and attempts to capture the important aspects of daily life for the Chiquitanos. This chapter provides the foundation for discussion of development in Lomerio, and an exploration of ways that it can be more closely grounded in Chiquitano culture. Chapter 3 introduces the major players in Lomerio development, CICOL and the NGOs, and focuses on the organizational culture of CICOL and the NGOs. I outline the structure, norms, and interactions of the different organizations. I also detail CICOL's effects on local political organization, and describe the political struggles that have shaped decision-making in Lomerio in the past decade. Chapter 4 describes the forest management project. Each of the different components--administration, commercialization, certification, production, the sawmill, extraction, and

community relations--are analyzed and recommendations are given as to how the project could be altered to better match local and outside NGO concerns and needs. Chapter 5 analyzes data presented in chapter 3 and 4 within a common property resource institutional model (Ostrom 1990). I also present generalizations and lessons that can be taken from this study to examine development in general, and the ways in which indigenous people throughout South America are responding.

Theoretical Perspective

The theoretical approach taken here emphasizes the links among the landscape, people, and the economy, and is positioned within the theoretical approach known as political ecology. The approach is heavily indebted to the ecological approaches to culture developed by Steward and Rappaport. However, political ecology rejects the ahistorical and culture-as-island approach that Steward's (1955) culture core concept and ethnographies, such as Rappaport's (1966) Pigs for the Ancestors employed (Bates and Lee 1996). Today, the world is dominated by population increases, and transnational flows of people, commerce, organizations and information (Kottak 1999). Older ecological approaches ignored local-global articulations, and links between the community and the nation-state (Biersack 1999). With an explicit political awareness and an emphasis on policy concerns, political ecology focuses on issues of power in human/environmental relations (Peet and Watts 1994). It seeks to understand the causes of environmental degradation (Costa et al. 1995), movements to promote "environmental rights" (Johnston 1995), and the ideological underpinnings of international development institutions and their efforts at the local level (Escobar 1995, 1996).

The cultural ecology approach developed by Steward (1955) was the first to clearly delineate the field of human\environment interactions. Moving beyond the generalities and restricted functionalism of environmental determinism, Steward proposed a research method that linked the environment, social organization, and human resource use through his concept of the "culture core" (Steward 1955).

Identifying the culture core involves uncovering a number of fundamental characteristics about the social system in question. The problem lies in the deciphering of whether the adjustment of human societies to their associated environments demands specific types of behavior or whether there is range in human responses (Steward 1955:36). The method involves three tactics: 1) analyzing the relationship between a subsistence system and the environment; 2) analyzing the behavior patterns associated with a certain subsistence technology; and 3) determining the extent to which the behavior pattern found in a subsistence system affects other aspects of culture (Steward 1955:40-41).

Steward considered social institutions as having a functional unity that expressed solutions to subsistence problems (Moran 1990:10). However, Steward's use of functionalism was concerned with the operation of a single variable in relation to a limited set of variables, not in relation to the social system as was current in the then current British functionalism (Ibid:11). Steward (1955) steered studies of human\environment interaction toward a concern with how social systems change through time, and how a limited set of causal relationships within that system can initiate and direct the change.

Operationalism of Steward's cultural ecology approach resulted in a modifications of the basic strategy. Geertz (1963) argued that the basic model of the culture core ignored the complexity of social and environmental systems. He rejected the idea that the part of culture most closely related to subsistence activities and economic arrangements is the "core", while relegating the rest of culture as "secondary," "indeterminately shaped by the accidents of random innovation and diffusion" (Geertz 1963:10-11). In the early cultural ecology of Geertz, the ecosystem became the basic unit of analysis. Bringing a much more explicitly biological concept such as systems theory into anthropology meant a much broader framework of analysis, and resulted in a focus on material interdependencies and interchanges of energy in communities (Geertz 1963:3-4). The ecosystem approach contributed greater holism to the study of human societies through a focus on the biological basis of productivity, and it became a valuable complement to the cultural ecology approach (Moran 1990:15-16).

The development of an ecological approach in anthropology was greatly impacted by Rappaport's work in the New Guinea Highlands (1967). Rappaport explicitly utilized the systems theory model to place humans within the ecosystem. His study related the ritual cycle to cycles of pig population growth, the fallow cycles of swiddens, and cyclical patterns of warfare and peace. Rappaport emphasized holism, but at the same time focused on micro-variables that affected relationships between humans and the environment. The study successfully ignored macro-level influences, and allowed an intensive concentration on data related to subsistence systems, and the impact of those systems on the environment as well as the social system.

Rappaport's study provided a definitive example of the advantages and limitations of using ecosystem concepts in ecological anthropology. Vayda and McCay (1975) described the problems that they saw as existing in ecological anthropology. Most importantly, they argued that ecosystems approaches are "equilibrium centered," that the focus on negative feedback processes ignores nonhomeostatic changes, systems disruptions, and unbalanced relations between people and their environments (Vayda & McCay 1975:294). The authors also state that ecosystem approaches are unable to explain cultural phenomena. They state that describing how traits or institutions work in relation to environmental problems does not provide an acceptable explanation of those traits or institutions (Ibid:294). Another criticism is that there is an overemphasis on energetic efficiency and the "caloric obsession" (Ibid: 296-97). Lastly, the authors argue that the actions of individuals have been ignored in examining how groups respond to environmental conditions.

Despite these criticisms, these authors and others have stated that ecological anthropology should not be abandoned. There has been a shift from single variable studies involving calories to more multivariate approaches to causality in human societies (Smith & Winterhalder 1992). While rejecting the past environmental reifications that characterized much ecological anthropology, contemporary researchers argue that ecosystem approaches are heuristic tools that encourage systemic thinking and inclusiveness in examining social systems (Moran 1990; Rappaport 1990).

The attention in policy circles to the human dimensions of global environmental change has renewed interest in ecological approaches, and, particularly, in the late 1980s

and 1990s researchers have become interested in resource management and systems of production and conservation (Posey & Balee 1989; Denevan & Padoch 1988).

Along with the increased emphasis on analysis of resource management, is increased awareness of macro-level factors affecting local level production systems. Political ecology focuses on the key variables that constitute the "socioeconomic matrix" of resource management at different scales of analysis (Schmink 1994:258). This approach emphasizes the interactions among various resource user and interest groups, and "how their actions are shaped by, and may affect the socioeconomic and political context over time" (Schmink 1994:258). Each user or social group has a rationale for their resource use patterns, yet these uses are often in conflict. Users respond to particular situations based on their own objectives, constraints, and perceptions. These characteristics are defined by access to the resources in question and by particular characteristics of the user group (ethnicity, education, social class, etc.). Access is, in turn, controlled by socioeconomic structures of the society, including property relations, market systems, and macroeconomic policies (Schmink 1994:258). The matrix of forest and resource management decisions in general is composed of these socioeconomic structures.

Analytical Methodology: Institutional Analysis:

Bromley (1989) has provided comprehensive theoretical explanations of institutional change. He argues that systems of resource use and economic behavior are constrained by the norms and rules that define choice domains, the relations among individuals, and the criteria which indicate who may do what to whom (Bromley 1989:49). Since institutions determine the choices available to individuals or groups they

are the foundation of particular choices and behaviors (Bromley 1989). At any particular moment institutional arrangements determine economic conditions for certain individuals or groups. The outcomes of economic behavior are continually judged by the members of a group to be good or bad. If the conditions are seen as inappropriate or, as in market economies, inefficient, there will be a response through political channels to change the institutional arrangements that define choice sets (Bromley 1989). The challenge is to construct an institutional structure that sets boundaries and establishes order, but at the same time is flexible and capable of responding to new conditions. The work of Bromley will provide the theoretical background for the analysis of institutional process in Lomerio, and the work of Ostrom (1990) will provide the analytical framework.

Ostrom has focused her research on field settings where resource users have successfully created and maintained their own institutions to control the use of natural resources, and she has concentrated on identifying the factors that have allowed these systems to survive for long periods of time (Ostrom 1990, 1992). She has detailed eight "design principles" in operation in a wide range of robust natural resource institutions. These provide the primary domains of inquiry in the analysis of institutional organization in forestry management among the Chiquitanos. The eight domains are listed below with a brief summary of each (adapted from Ostrom 1990 and McGiness and Ostrom 1993).

1. Clearly Defined Boundaries. Individuals, households, or communities that have rights to extract forest resources must be clearly defined as well as the boundaries of the resources themselves.

2. Congruence between Rules and Local Conditions. Appropriation rules restricting time, place, technology, and/or quantity of forest resources are related to local conditions and to provision rules regarding labor, materials, and/or money.

3. Collective-Choice Arrangements. Most individuals affected by operational rules can participate in modifying operational rules.

4. Monitoring. Monitors, who actively audit forest resource conditions and participant behavior, are accountable to the participants or are the participants.

5. Graduated Sanctions. Participants who violate operational rules are likely to be assessed sanctions (depending on the seriousness and context of the offense) from other participants, by officials accountable to these participants, or by both.

6. Conflict Resolution Mechanisms. Participants and their officials have rapid access to low-cost, local arenas to resolve conflict among participants or between participants and officials.

7. Minimal Recognition of Rights to Organize. The rights of participants to devise their own institutions are not challenged by external government authorities.

8. Nested Enterprises. Appropriation, provision, monitoring, enforcement, conflict resolution, and governance are organized in multiple layers of nested enterprises.

Development in Bolivia: From Top-Down to Community-Based

At the heart of this dissertation is a forestry project that reflects an effort at economic development and ecological conservation. The approach taken in the project is the latest in a long history of development in Bolivia and throughout the "Third World." It is a community forestry project based on the principles of community-based conservation and sustainable management of natural resources. The project is designed

to create economic benefits for the local communities through the long-term use and management of timber resources on local lands. The project is designed so that the local communities harvest timber at a sustainable rate, meaning that only a percentage of the trees are cut and damage to the forest is minimized to allow for the regeneration of commercial species. The harvested trees are milled in a locally owned sawmill, and the timber is sold to national and international buyers. The profits are then distributed through the participating communities. On the ground, this process does not work out so clearly and evenly, and that is what this dissertation seeks to explain. In this section, I will briefly contextualize the project in terms of the history of development in Bolivia, and explain some of the basic principles of community-based conservation.

According to James C. Jones (1995, 1997) the entire history of development in Bolivia has been controlled by a "racist elite" and driven by a "mining mentality" (1997:116). Jones says that development agencies have ignored the control "economic and power elites" have maintained over the Indian majority in the country. They abuse the Indians for cheap labor and control their political participation by manipulating Indian leaders (Jones 1997:116). This system has been in place since colonial times and has led to the plunder of mission wealth (once the Jesuits were kicked out of the country in the eighteenth century), rubber, wildlife, cattle, and now, tropical hardwoods. Each political regime takes its turn "mining" the natural resources of the country during its time in office in a self-serving fashion (Jones 1997:116). He argues that the Bolivian elite has taken the neo-liberal policies of free enterprise and deregulation to the extreme, sanctioning greedy and savage economic behavior. Support from agencies like the International Monetary Fund and the World Bank strengthens the sanction (Jones 1997:116).

Aid from these organizations increased in the aftermath of the Revolution of 1952 and the accompanying agrarian reform of 1953. These events established the framework in which development takes place (Gill 1987). The revolution was essentially a highlands event, and agrarian reform was based on conditions existing in the highlands. It was not well-designed for the *Oriente*, or lowlands. Land distribution proceeded slowly in the lowlands, and elites manipulated the process in their favor, creating large ranches, and pushing peasants and Indians into more marginal lands (Sanabria 1973; Gill 1987).

The lowlands were viewed as a peripheral area in the national economy. They opened up lands from the Chapare in the eastern foothills of the Andes to the city of Santa Cruz for colonization by dispossessed Quechua and Aymara farmers from the highlands (Stearman 1978, 1985). The numbers of migrants quickly swelled and many encroached onto Indian and campesino lands, creating pressures to secure land tenure.

Development policy of the 1960s and 1970s was dominated by top-down, capital-intensive aid projects. In the Santa Cruz area, development aid was designed to increase agricultural exports (Gill 1987). Almost all of the credits, technology, extension, and price supports benefited the large-scale producers of export crops such as soybeans, sorghum, and cotton. Little attention was paid to small-scale food crop producers. Development policy aimed to satisfy foreign exchange requirements for industrial development (Gill 1987:218-219). Hundreds of thousands of hectares of forest were cleared, and soils quickly depleted in a frontier-style land grab. New settlers cleared forest, harvested, and quickly moved to clear new areas (Gill:1987:5)). The drug war has dominated US-Bolivian foreign relations in the 1980s and 1990s. James C. Jones (1997) says that interdiction, or police and military repression of coca production, is

emphasized more than development alternatives to coca growing. This involves using American and Bolivian soldiers to capture drug traffickers. This has been a sensitive issue in Bolivia, and the US had to get the consent of local elites. They have granted this consent in exchange for important and lucrative positions in the new US funded forestry projects (Jones 1997:115). And, while the same elites control the flow of development aid into the nation, the development agencies constantly change their people, projects, and approach to development.

James Wilkie (1982), critical of the past role of US foreign aid in the underdevelopment of the Bolivian lowlands, asserts that the bureaucratic culture of organizations such as the World Bank and USAID has almost guaranteed a lack of results. He claims that the organizations are project oriented. Career advancement comes through developing new projects, rather than completing old ones. There is a tremendous turnover of personnel, and new officers are encouraged to come up with their own projects rather than to follow up the work of their predecessor. He calls USAID an "agency without a memory." (Wilkie 1982:107)

After the development disasters of the 1960s and 1970s, many academics and development practitioners began to argue that the poor, who were the targets of aid, should "participate," in the development process, meaning that they should work with developers in the design, implementation, and evaluation of the project (Chambers 1983). "Participatory development," or "community-based development" views local conservation and development as a collaborative process, rather than as simply a product of top-down policy-making. These new approaches recognize that rural communities are dependent on the sustainable use of resources such as soil, water, and forest products

(Cernea 1985), and that existing local organizations and institutions provide the proper context for management (Western et al. 1994).

In the 1970s and 1980s conservation moved to the forefront of public attention (Western et al. 1994). The world witnessed the disasters of three mile island and Chernobyl, scientists confirmed the acceleration of greenhouse warming and the expansion of the ozone hole, and the destruction of the tropical rainforests increased in intensity. A strong conservation movement in the industrial world began to demand that politicians address conservation issues in their local areas, and in more remote tropical regions. With the end of the cold war, environmental issues became high priorities on international agendas. The collapse of communism decreased political tension in the many developing nations and allowed many groups in developing nations to begin demanding equitable resource allocation and a local voice in conservation (Western et al. 1994).

At the same time that historical and experimental events were laying the groundwork for community-based conservation, research into common property institutions demonstrated that local communities can manage "open access" resources without private property institutions or state regulation. Common property theory provided a basis for approaching the relationship between property systems and resource use. Research conducted at the community level provided case studies of groups who have organized institutions to manage fisheries, forests, irrigation systems, pastures, game, and myriad other common property resources (Acheson 1989; Bromley 1989; McCay & Acheson 1987; Ostrom 1990; Richards 1997). Much of the research on the commons has explored the issue of institutional sustainability, examining the ways that

communities have overcome obstacles to collective action. Common property theory concentrates on identifying forms of social organization that are most effective in managing resources in particular situations. This body of work provides the theoretical framework on which much of the community-based conservation projects are structured.

The Chiquitanos' forestry project is an excellent case study of community-based conservation because it reveals the general strengths and weaknesses of the strategy. Common property theory argues that people will invest in developing institutions to manage resources when the benefits exceed the costs of doing so (Ostrom 1990). The Chiquitanos often debated this very question. Another basic tenet of community-based conservation is that incentives to conserve and manage resources must be embedded in the interests of local communities if conservation is to flourish as a voluntary rather than a coercive effort (Western 1994). The success or failure of the project of the Chiquitano really hinges on the types of incentives that the Chiquitano leaders are able to offer their communities.

Two other factors have greatly influenced the growth of community-based approaches to conservation. First, ever since the early 1980s, indigenous organizations have arisen demanding land rights, political autonomy, bilingual education programs and new forms of political participation, among other things. These organizations have become powerful actors on their own behalf, and many have demanded more participatory approaches to development and conservation (Conklin and Graham 1995). A second factor involved the human rights, environmental, and indigenous peoples support movements (i.e. Cultural Survival, International Work Group for Indigenous Affairs, Amnesty International, Conservation International). All three have drawn

attention to the plight of rural and indigenous people throughout the tropics, and also provided links between political, technical, and economic resources of the developed world. Overall, since the early 1980s there has been a tremendous shift in development aid from public agencies to the non-governmental organizations spawned by these movements. Both of these movements will be the subject of the next section.

Ecopolitics and Indigenous Politics

The rise in indigenous organizing, the importance of eco-politics, and the growing role of NGOs have all caught the attention of anthropologists over the past two decades. This is primarily because NGOs have become such important political agents in the domain that anthropologists claimed as their own--the rural community (Brosius 1999). Many researchers have looked at geographic regions, such as the Andes or the Amazon basin, and attempted to explain the phenomenon in general terms (Clay 1984; MacDonald 1984; Yasher 1997; Brysk and Wise 1995; Kearney and Varese 1995). Most have theorized that broad socioeconomic and/or cultural factors can explain the emergence of the indigenous organizations. Scholarship dedicated to the study of environmental movements has critically examined how NGOs and development institutions construct and contest nature (Escobar 1999; Zerner 1996), and explored the transnationality of environmental movements and discourses (Conklin and Graham 1995; Sundberg 1998; Brosius 1999).

In 1982 the Central Intercommunal Campesina del Oriente Lomerio (CICOL) was founded by a group of Chiquitano communities as one of a series of ethnic organizations that were spreading across the Bolivian lowlands. CICOL was formed to protect Chiquitano lands and resources from outside logging companies that were trying to move

into Chiquitano territory. Through the years they have expanded from a focus on territorial protection to economic development and political participation. The organization has taken over many of the political roles held at the community level, and has in effect become a new institution that combines traditional authority with new roles.

The authority of the organization was reinforced by a series of victories against the companies who were moving onto Chiquitano lands, and the securing of international funds for a forestry management project. They have proved themselves effective in promoting Chiquitano interests in engagements with the Bolivian government, and through linkages with international organizations. Almost from its inception, NGOs have worked closely with the organization, providing financial resources and technical assistance on the different projects that CICOL has implemented. It is this relationship that has been most instrumental in the direction that the organization has taken in terms of political engagements with the national society, and in its efforts at economic development. The relationship is problematic, however, and demands attention. NGOs are often paternalistic and create dependency in their relationship with indigenous organizations.

The Rise of Indigenous Political Organizations

Organizations such as CICOL arose out of a movement begun in the 1960s to link the struggles of indigenous people throughout the world. In 1964, the Shuar Federation was created as an association of Shuar communities in the Sucua region in southeastern Ecuador (Smith 1984). The Amuesha of the central Peruvian Amazon established the Congress of Amuesha Communities in 1969 (Smith 1984). Both of these organizations formed under similar conditions. Agrarian reform in the Andean regions of Peru, Bolivia,

Ecuador, and Columbia led to programs to direct landless peasants and Indians to lowland eastern forests, which were billed as an empty frontiers and future centers of agricultural production (Smith 1984). Most of these migrants came into direct conflict with groups, such as the Shuar and the Amuesha that had been living in these "empty frontiers" for centuries. The assault on the land base was the primary reason for organization for these groups and the organizations that came after.

Robin M. Wright (1988) says that indigenous intellectuals began to meet in international conferences such as the Port Alberni Conference of 1975 and the Barbados Conference of 1977 to create alliances with other ethnic groups, classes, labor unions. These conferences also promoted solidarity among such movements throughout the Third World (Wright 1988:377). The conferences promoted the idea of indigenous identity as a viable and long-term strategy for liberation, making it viable, but distinct from class consciousness (Wright 1988:377). Indigenous leaders left these international conferences and went to work in their home countries. Networks of native organizations began to arise, varying from small inter-communal organizations to national and international confederations (Yasher 1997:2). Most of the smaller organizations focused on specific local issues of land tenure and resource control, many of these in opposition to situations created by development efforts.

All of these organizations have struggled to reconcile Western forms of political organization with ideologies and practices taken from the native experience. Janet Hendricks (1991) argues that the Shuar Federation of Ecuador has maintained a firm sense of Shuar identity and beliefs even while instituting major changes in the Shuar political organization and modes of economic production (1991:54). The Federation has

strongly promoted cattle raising among the Shuar, and has adopted a Western-style organization with a hierarchy of elected officials, and a system of commissions structured to match the various ministries and agencies of the Ecuadorian government. However, they have created a successful resistance movement that is strongly critical of national policies and local efforts at economic development and migration into their territorial lands (Hendricks 1991:55). Hendricks says that their success is a result of fierce opposition to government programs and policies that threaten traditional Shuar values, but restrained acceptance of programs that benefit the Shuar and reinforce Shuar belief systems. They have linked government efforts to promote sustainable forest management with traditional Shuar values and beliefs concerning human/land relationships. They have also transformed government bilingual education programs into efforts designed to preserve the Shuar language and promote awareness of traditional knowledge systems (Hendricks 1991:56).

CICOL, the Chiquitano organization, has had a similar experience. They also have structured their organization to match the relevant Bolivian government ministries with whom they interact. According to Hendricks, the Shuar Federation maintains a strong, anti-development position. CICOL consciously attempts to promote development, but according to their own terms. They have sought their own funding for projects, and are selective in choosing the organizations they will allow to work in their territory. The forestry project has been slow growing, and it is only recently that it has reached a scale that could change the economic structure of the area through increased income and forms of labor organization. CICOL struggles to make sure that the direction the project takes is consistent with Chiquitano interests, and that it does not threaten to

transform Chiquitano values and beliefs. Later, I discuss how CICOL leaders constantly reaffirm their authority through appeals to a return to traditional values and fierce critiques of the development agencies that are working with the forestry project. Organizations such as CICOL and the Shuar Federation have now matured and many of their original goals of territorial protection and increased political participation have been accomplished. Still, they have shown resilience in expanding their core issues to include cultural autonomy and economic development (Urban and Sherzer 1991). The continued strength and growth of these organizations represents a new phase in the history of relations between indigenous peoples and nation-states, and may finally signify a truly indigenous response to the encroachments that have been made into their worlds.

In general, class-based organizations and political movements, such as the agrarian and labor syndicates, have never captured the interest of indigenous people of the Amazon basin, as in other areas such as the Andes. This is mainly a function of isolation. In the Bolivian lowlands, road-building is still in its initial stages. Travel and communication are difficult even between areas that are relatively close. In the highlands, long-distance communication among rural and indigenous people has allowed communication and political organization for a much longer period of time. Michael Kearney (1996), in an analysis of the rise of ethnic movements among indigenous peoples, argues that class identity, because of its abstract nature, is not easily taken up as a part of an individual's subjective identity. He says that ethnicity is more capable of concretizing ideas of sameness and difference, and doing so in an emotionally charged manner, giving it more potential to mobilize groups (1996:179). In addition, ethnicity

more clearly resonates with kinship, making it a powerful conceptual and organizational tool among indigenous people.

Kearney says that he uses ethnicity to mean the cultural construction of person and community (1996:179). The strength of the concept as a basis of identity and political organization is that it is not dependent on means of production, making it an ideal aspect of identity for marginalized peoples and the dispossessed, of which many indigenous groups certainly qualify (1996:180). Since it is not tied to specific nationalities, it is also well suited to the types of transnational communities that have been created among indigenous peoples throughout the world (1996:181).

Since the late 1950s the Chiquitanos have created a series of agricultural syndicates, modeled on the strong, politically powerful syndicates of the Bolivian highlands. The syndicates, however, were always short-lived. Once they had achieved their immediate objective, be it the expulsion of rancher/patrons, or the securing of agricultural loans, they disbanded through lack of a central organizing focus. CICOL, in fact, was a direct descendant from the syndicates. Many of the original founders of CICOL, and the leaders to follow were members of the same families as the syndicate organizers. CICOL has already lasted much longer than any of the previous labor organizations. Finally, CICOL, as a political movement, has drawn its support from a wider base with its philosophy of promoting Chiquitano cultural autonomy. This has also allowed it to gather ideological strength, information, publicity, and support internationally from the global indigenous movement as a whole.

Yasher (1997) focuses more on the political and economic structural factors that have affected indigenous people in South America. She sees the root of the indigenous

ethnic movements as a general response to the structural adjustment policies--wage freezes, price hikes, public-sector layoffs, currency devaluation, and an end to price subsidies on food and fuel--that most South American states implemented in the late 1970s and early 1980s. In general, these economic policies imposed by the World Bank and International Monetary Fund on developing countries meant decreased government funds in rural social services and education. The national governments' need for foreign currency resulted in efforts to increase exports. In rural areas, this took a toll on natural resources through the national promotion of logging, mining, and cattle ranching in indigenous territories (1997:8). This meant increased threats to precarious land tenure arrangements that had protected the communal land holdings of indigenous communities. Increased state pressure to bring lands into productive use in indigenous territories also challenged local forms of political organization which had been informally allowed to exist though rarely officially recognized (Stroebele-Gregor 1996:77). Prior to the 1980s, independence of local political institutions and land tenure has been more related to isolation than government policy, but beginning in the 1980s it has become increasingly difficult for indigenous groups to remain isolated. Political squeezing has led to increased rural organizing and protest with a uniquely indigenous flavor because of the challenges to indigenous authority and property at the local level. The result was the national political expression of a local politicized identity of Indians as Indians (Yasher 1997:24).

Both of these analyses are helpful in understanding the reasons for the emergence of CICOL, but to comprehend the continued strength and resilience of the organization

another factor should be considered: the rise of human rights and environmental non-governmental organizations (NGOs).

Non-Governmental Organizations

In Bolivia, NGOs have provided a tremendous amount of technical support and money to indigenous organizations, and have underwritten most of the legal battles for land titling. They have also become effective in influencing government policy towards indigenous people through international publicity campaigns that have brought the relationships between indigenous people and the state into the global media spotlight. With declining faith in state-led development strategies, international aid donors are increasingly turning to NGOs to implement development strategies (L. Macdonald 1995). According to the United Nations Development Program, total aid funneled through NGOs increased from \$1.0 billion in 1970 to \$7.2 billion in 1990 (L. Macdonald 1995:31). During the 1980s the growth rate of official aid to NGOs was almost five times higher than the growth in governmental development assistance (L. Macdonald 1995:31).

The popularity of NGOs for channeling development and conservation funds has led to the creation of what have been termed quasi-NGOs, or "Quangos" (Price 1994). Quangos are publicly sponsored affiliates of government ministries that look like and function like NGOs, even though they receive government funds (Price 1994:53). In Lomerio, the organization BOLFOR is a Quango, associated with the US Agency for International Development (USAID) and the Ministry for Sustainable Development and the Environment (MDMSA) in Bolivia. These organizations possess enormous potential for reforming environmental policy at local, national, and international levels, and their strengths and weaknesses need to be analyzed.

Development practitioners have pointed to some of the general characteristics of NGOs: participatory, commitment/dedication, and flexibility, that make them particularly suited to rural development/conservation projects (Vakil 1997). Donors and development agencies in Northern countries began to view the national "indigenous" NGOs as vertical intermediaries between local, village or community organizations and the financial, technical, and political resources of the donor agencies (MacDonald 1995; Meyer 1993). A few authors have described the growth in NGOs as an economic response to the demand for institutional change in the developing world (Meyer 1993). There is increasing demand for the NGOs to receive development funds that would normally go to the public sector (Meyer 1993:192). While the interest in and approval of NGOs has been growing in the development community, the roles of NGOs and the relationships between NGOs and the base or grassroots is poorly understood.

The wide array of NGOs, with different institutional configurations, memberships, orientations, funding sources, and specializations, necessitates some preliminary clarification. First, there are distinctions between northern NGOs (such as OXFAM, Conservation International, and the World Wildlife Fund) and those of developing countries (Bebbington and Farrington 1993). Secondly, Carroll (1992) distinguishes between membership and non-membership organizations. These differ in social and ethnic composition, their relations to grassroots groups, their origins, and management styles and skills. Non-membership organizations tend to be staffed by middle class, non-Indian, professionals, and are administered through formal bureaucratic procedures (Carroll 1992). Membership groups are generally composed of the rural poor, Indian and non-Indian, and are managed through more informal procedures (Carroll 1992). This

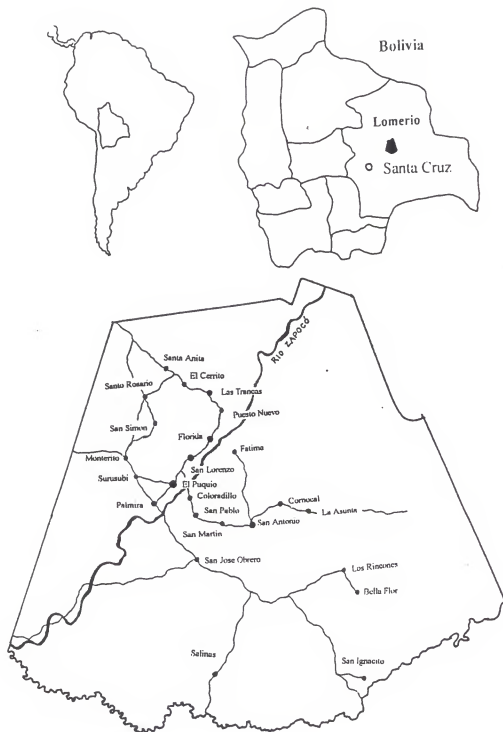
study analyzes the relationship between a membership-based organization formed among the Chiquitano (CICOL), and a non-membership organization that works closely with the Chiquitanos (APCOB: Apoya para Campesina Indígena del Oriente Boliviano). Additionally, I examine the role of a US government sponsored quasi-NGO, or Quango, (BOLFOR: Bolivian Sustainable Forestry Project) that has begun working with the Chiquitanos.

The Study

My fieldwork, began in July, 1997, and lasted until August, 1998. It focused on the communities of Lomerio, an area encompassing 28 Chiquitano communities south of the town of Concepcion in the Department of Santa Cruz. I came to Bolivia hoping to study a community-based development/conservation project. I wanted to use development as a springboard for exploring how indigenous people are responding to the challenges and opportunities placed before them through the globalization of political and environmental movements.

The choice of the Chiquitanos came through circumstance and serendipity. First, my wife, a forestry ecologist, received research funding to work with BOLFOR, a USAID (United States Agency for International Development) project promoting sustainable forestry management in the Bolivian lowlands. I contacted the project administrators about the possibility of doing a study in conjunction with their project. They suggested that I work on the Chiquitano forestry project in Lomerio. It turned out to be exactly the type of project that I was seeking.

I arrived in Santa Cruz, Bolivia in July, 1997. The first few weeks were spent talking to researchers who had worked in Lomerio. The Chiquitanos have been actively



Territorio de Lomerio

Figure 1. Map of South America, Bolivia, and the communities of Lomerio

involved in an internationally funded development and conservation project for the past 18 years. There has been a great deal of research conducted in the area: ecological studies, economic analysis of forest use and logging operations, hunting and wildlife studies, gender studies, a variety of household surveys and censuses, and ethnographic projects. The two major NGOs that work in Lomerio both employ anthropologists, and in the case of APCOB (Apoyo para Campesino Indígena del Oriente Boliviano), three or four. Many of the NGO personnel have worked in Lomerio for years, some for over a decade, developing the sustainable forestry project. Their insights, knowledge, and observations helped me throughout the fieldwork period.

The Chiquitanos of Lomerio have had experience with foreigners, such as Peace Corps volunteers, biologists, anthropologists, and missionaries. My strange habits and constant questions were not entirely new. Soon after I arrived, one of the older residents came to my house in the early evening and told me that he wanted to tell me a story. I sat down to listen, figuring that note-taking or recording might be taken as rude on our first visit. He, however, insisted that I use my tape recorder to fully record what he had to say. Many families showed me maps and kinship charts that had been drawn up with other researchers who had come through the area. Often, I felt that informants had more experience answering anthropological questions than I had in asking them.

Chiquitanos constantly asked me why I was doing my research, and how would its results be relevant to their daily lives. I always responded that I was hoping to improve the ways that development was being done in Lomerio, making development more integrated into the values, political institutional structures, and economic patterns of the Chiquitanos. I think that they accepted this, but I was never sure if I did. I felt that I

could stay in Lomerio for 10 years and never fully understand the complexities and depth of Chiquitano culture. I was only scratching the surface, and I felt uncomfortable making my conceptions and ideas about life in Lomerio the basis for real, powerful policy measures that deeply impacted peoples' lives.

For me, fieldwork began with a small, basic set of research questions about indigenous political organizations and NGOs. Quickly, the set of research questions expanded. The more I learned, the more questions presented themselves. The longer I was in Lomerio, the more I had the feeling that I really did not understand what was occurring. The vastness of what I had to comprehend left me feeling that my observations, questions, and interpretations were inadequate. It was only after I left the field and began reading over my earlier field-notes that I realized I was learning more than I thought while I was doing it.

I really did not have trouble finding informants who were willing to answer my questions about Chiquitano culture, many of them with an astuteness and insightfulness that I can only try to replicate. However, my main obstacle was a constant guilt that I was intruding, and had no business being where I was. I felt that I was taking much more from Lomerio than I was capable of returning. I wasn't sure if my study would help, and this feeling has not left even through the writing process. I mention this because I believe that it affected the type of study that I did.

Because of my misgivings about research, I did not rely heavily on formal methods. Power differences in the relationship between researcher and subject are more apparent to me in more formal methods. Admittedly, the use of informal methods may only be an attempt to ignore issues of power, but I was more comfortable using them, and

I was more effective in gathering information informally. I did not neglect the use of formal methods, however. I conducted structured interviews and even did a survey, but most of the data presented here comes from more informal methods. I listened to people as closely as possible. I tried as best as I could to participate in the normal conversations that people had with one another in carrying out their daily lives. When a topic of particular interest arose, I tried to pursue it through questioning. I asked informants to follow up a previous conversation and explain some topic to me in detail. Admittedly, this does influence the type of data that I was able to collect since it is restricted to the small group of people who were willing to talk to me and speak openly when I was around.

The use of informal methods raises questions of reliability and validity in data-collection. Kirk and Miller (1986) embrace the subjectivity that is necessary in ethnographic research, and incorporate personal interpretation as one of the valuable tools in the ethnographer's kit. The authors accomplish this conceptual meshing by defining objectivity as the realization "of as much reliability and validity as possible." (Kirk and Miller 1986:11)

There is no such creature as perfect validity in ethnographic interpretation. Again, relativism is the usual context of any observation. However, validity can be "maximized" in the sense that interpretations can become more powerful, clear, and reliable. One way that this is accomplished is by approaching a question from a number of different angles and/or a variety of methods. An interpretation that is reached from a diverse array of perspectives and methods can be said to be more valid than one reached from within a single perspective or single method (Kirk and Miller 1986). Interpretations of group

opinion based on conversations with all group members can be said to be more valid than interpretations reached from conversations with one or two members. I participated in many group conversations, and I tried to identify the areas of consensus and disagreement. I then followed up these discussions with conversations with individuals. I tried to separate what people said in groups from what they said in private.

Reliability is controlled by the detailed documentation of the context of observation (Kirk and Miller 1986). What are the factors affecting ethnographic observation and interpretation? How do emotion, physical condition, language, gender, age, and other particular circumstances become relevant variables? Objectivity is impossible without contextualization. Interpretations of a particular situation may be more related to extraneous conditions than to interactions that were the subject of observation. I tried to detail the conditions under which my observations were made and interpretations developed. I was concerned that my prejudices and biases, and my daily changes in mood affected the lens through which I was interpreting life in Lomerio. I countered this by asking the same questions over and over, under different conditions, and different mental states, hoping to reduce bias through replication.

Since there was so much research being conducted in Lomerio, CICOL was given authority by the communities to regulate who would be allowed to work in the area, and what types of research could be conducted. I do not know of an instance where CICOL prohibited someone from working, but they did use the power in their constant negotiations with the NGOs who sponsored the research. They occasionally threatened to expel all researchers from the area if certain compromises were not made in their favor.

I arrived in Lomerio shortly after one of these threats, and I was worried that I had picked the wrong time to present my proposed project. I went to the CICOL office and explained the project that I wanted to do: an ethnographic study of the forestry management project and the interactions between CICOL and the associated NGOs. They agreed, on the condition that I worked in the CICOL office. They needed someone to organize their growing library and archives, and to train the directors to use the computers that had recently been donated to the organization. I gladly took the "position" of office assistant, and soon found myself in the middle of the daily workings of CICOL.

Organizing the archives gave me the opportunity to find out a great deal about the history of the organization and the forestry project in a short period of time. I created files and logs of all of the correspondences between CICOL and the development organizations. Reading a chronology of correspondences that reached back as far as fifteen years allowed me to identify themes and patterns that have dominated the relationships through the years, and provided a deeper understanding of the interactions that occurred during the relatively shorter period of fieldwork.

I also participated in many of the daily meetings that took place in the CICOL office. Most of these meetings were informal discussions among directors, but there were often more formal meetings with local community representatives, and highly charged planning and crisis-resolution meetings of CICOL directors and NGO staff. My role in the office was always that of a BOLFOR representative and, perhaps more importantly, a non-Bolivian outsider, but I believe that my day-to-day presence quickly broke down the barriers that the institutional association carried, and made me privy to much of the gossip, jokes, and complaining that are a part of office worklife. My opinion was often

sought during planning meetings, and I tried to be helpful if I thought I had something to contribute.

The CICOL office, however, was in Puquio el Cristo Rey, and I lived in the community of San Lorenzo, about 5 km away. BOLFOR maintained a research station that was located on the central plaza. The building was used primarily by forestry technicians on short term assignment in the field, or by other persons traveling through the area. The community allowed my wife and me to use one of the rooms as a semi-permanent home. I commuted to the office via foot, bicycle, or one of the logging vehicles that act as public transportation for Lomerio.

Working in an office is not the experience of most Chiquitanos. Daily life in a Chiquitano community revolves around work in the fields, forest, and home, and is marked by the activities and obligations of the family and the community. I tried to divide my time evenly between the CICOL office and San Lorenzo.

One of my most important research activities was joining a work group, an association of men who rotated between each others' fields, sharing the heavy labor. I did not have a field to work in the rotation, but I had many questions, and the men in the group became my most valuable informants. Participating in the full range of activities in the agricultural cycle gave me a richer understanding of the seasonal rhythms in the community, and helped me to establish trust with the men and the community in general. My lack of skill with a machete and ax was a source of innumerable jokes at any community gathering.

I also attempted to participate as fully in community activities as possible, attending formal organized activities, such as Mass and the regular community meetings,

as well as the more informal fiestas and household visits. Perspectives within the communities on Lomerio history, Chiquitano identity, and the forestry project were much different from that of the CICOL directors, and made for a valuable contrast.

I also conducted a region-wide survey of the communities of Lomerio.¹ The survey collected a comprehensive array of data about health, education, resource use, and economic activities. Some of these data will be presented in the next chapter as a part of a general description life in Lomerio. In recent years there have been a number of surveys and censuses done in Lomerio (Toledo Gutierrez 1995; Zarzycky 1992; APCOB 1996; VAIPO 1997) by a variety of NGOs and researchers. The frequency has generated complaints from many community leaders. In a General Assembly that brought together the CICOL directorate and community representatives, the *diagnosticos* were cited as one of the major problems in the relationship between the people of Lomerio and NGOs. Residents said that they were tired of the endless questions and long workshops that took away valuable time needed for work in the fields and home. Many of the survey participants complained that the surveys were disrespectful and invasive, and they questioned the surveys' necessity and usefulness. The Assembly decided to require all researchers proposing surveys to justify their research in terms of benefits for the local area.

After consultation with CICOL, I decided to do my survey between March and May, a relatively light period of work for men and women in the agricultural cycle. I also held a meeting in each community to explain my intentions and reasons for doing the

¹ The survey was part of a project of Dr. Ricardo Godoy, measuring variables affecting rates of deforestation among indigenous peoples of the Bolivian lowlands (Godoy 1999)

survey. Despite this, there was much resistance to the surveys. Many families were concerned about how the information would be used, and some refused to participate.

The survey was lengthy, taking between 2 and 3 hours with each family. With the assistance of a Chiquitano student, I surveyed 220 families in 20 communities (There are approximately 840 families in the 28 communities of Lomerio). The community leaders selected the families to participate, mainly based on the family's willingness or not. This has possibly led to some bias in the data towards those with more favorable attitudes toward development and the forestry project, but with the prevailing attitudes towards surveys at the time, I had little control over who would be surveyed.

Besides the data collected in the actual survey, the conversations with families and communities about the surveys and the work of NGOs in general, yielded a wealth of data on community attitudes toward the forestry project, and other smaller projects in Lomerio.

What I present here comes out of thousands of conversations and observations. I lived with the Chiquitanos and listened to and watched the patterns of their lives. This dissertation represents my construction of that experience, and in no way makes a claim to authority in understanding of Chiquitano culture. I can only claim that it comes out of careful attention and an honest attempt to learn.

Conclusion

In an introduction to the book Indigenous Peoples and the Future of Amazonia, Leslie Sponsel (1995) says that for anthropological research to remain relevant to indigenous communities, it must move beyond documentation of traditional environmental adaptation patterns. He argues that anthropology should focus more on:

1) the ways that indigenous societies have adapted to the environmental and cultural impacts of western society, and 2) the application of research to the needs, interests, priorities, and rights of indigenous societies, such as in providing information to them, supporting intellectual property rights, and promoting self-determination (Sponsel 1995).

Overall, I believe that this dissertation, as a case study, contributes to the understanding of the cultural and economic dynamics underlying the relationship between indigenous organizations and NGOs in the present context of international development. While it is difficult to generalize from single case studies, the issues raised by the relationship between CICOL and the various NGOs in Lomerio, paternalism, dependency, facade-building, are present in all similar contexts throughout Latin America. This case study shows how those involved have created their problems and how they are attempting to solve them. This can hopefully provide lessons for others facing the same challenges.

CHAPTER 2

LOMERIO AND THE CHIQUITANOS

Lomerio lies in the center of the former Jesuit mission region of the southeastern Bolivian lowlands, an area that extends from Santa Cruz east to the Brazilian border, between the tropical wetlands of the Llanos de Moxos to the north and the Gran Chaco desert of Paraguay to the south. Lomerio takes its name from its gentle, rolling hills (*loma* means hill in Spanish). Seen from above, the region is a mosaic of savannah, and low, dry forest, broken by large, rounded granite outcrops termed *lajas*, and by streams and rivers that cascade through the hills in the wet season, and lie stagnant and still in the dry season. There are only two roads in and out of Lomerio, and only one is passable by bus service for the entire year. It is an area that the Chiquitanos fled to trying to escape the rubber barons in the late nineteenth century, and the area gives the impression of isolation.

Jurgen Riester's (1976) *En busca de la loma santa* (In Search of the Holy Hill) is the only major anthropological description of the Chiquitanos. The book is meant to be an overview of the culture and condition of all of the lowland tribes. He provides a cultural sketch of the Chiquitano, describing the productive system and the *cabildo* political structure. He also describes religious syncreticism among the Chiquitano: the combining of ideas and symbols from the Jesuit period of Chiquitano history with Chiquitano beliefs about the spirits that inhabit and control aspects of the natural world,

such as rivers, corn fields, and forests. This chapter is meant to update the work of Riester, specifically focusing on the Chiquitanos of Lomerio. I provide a historical background to the present condition of the Chiquitanos, and also describe the daily and seasonal activities that make-up Chiquitano life. I describe the environment of Lomerio, the layout of Chiquitano villages, agriculture, education, fiestas, and wage labor activities. One of the greatest changes in Chiquitano life has come in the area of political organization. The *cabildo* system described by Riester has since lost almost all of its traditional authority among the Chiquitanos of Lomerio. I leave a discussion of political organization until the next chapter where I discuss the role of CICOL, the organizational manifestation of the recent Chiquitano struggle for land and autonomy.

Population

Lomerio is unique in that it is essentially a Chiquitano enclave. Over 99% of the residents are self-identified as Chiquitano (VAIPO 1997). Outside of Lomerio, the majority of Chiquitanos live in or around major regional towns, such as Concepcion and San Ignacio, and are more integrated into the national economy and society. In Lomerio, close to 80% of the residents speak *Besuro*, the Chiquitano language, compared to 10% in Chiquitano communities outside of Lomerio (VAIPO 1997).

According to the 1992 census there are 220,000 indigenous persons found among 36 different groups in the lowlands of Bolivia from the Amazon to the north and the Chaco desert to the south (APCOB 1996b). The Chiquitanos are the largest group in the *Oriente*, or lowlands, with a population of around 72,500, 34% of the total for all indigenous people. Half of the Chiquitanos live in the province of Velasco, a quarter live in Nuflo de Chavez, and the rest are spread out in the provinces of Angel Sandoval,

Chiquitos, and German Busch (INE Census 1992). Within each province the Chiquitano populations are concentrated in certain cantons. For example, in the province of Nuflo de Chavez, the canton Santa Rosa del Palmar, also known as Lomerio, is almost 100% Chiquitano. In the canton of Concepcion, 82% of the population is Chiquitano (INE Census 1992). In other cantons the Chiquitano population numbers are much lower. There have been numerous population censuses conducted in Lomerio, the research area for the study presented here, with widely varying results, probably due to temporary labor migrations, but the most likely population estimate is between 5500 and 6000.

The Land

Lomerio lies in the transition zone between the humid tropical forests and savannahs of the north, and the dry savannahs of the Gran Chaco to the south. This area is a patchwork of savannah grasslands and wooded areas. However, compared to the Llanos de Moxos to the north, the forests here are much drier. The forests located on the Chiquitos uplands drain in the north to the Río Mamoré, and so, are a part of the Amazon drainage basin. To the south of Lomerio the uplands drain to the Río Paraguay part of the Pantanal drainage system. Lakes are not a common feature of the landscape as in the Llanos.

Seasonality is a defining characteristic of the dry, deciduous forests (Parejas & Suarez 1992). There is a pronounced dry season between May and October when there is practically no rainfall. Being deciduous, forest trees shed all of their leaves during the dry period. There is also a pronounced flowering and fruiting period in which fruits are dropped at the beginning of the wet period of November to April. In comparison to areas to the north, the forests are relatively species-poor. Trees are generally smaller in

diameter and shorter in height in comparison to wet forests, leading to a much lower canopy than the wet forests (Bullock et al. 1995). These forests are dominated by leguminous tree species as well as species in the Bombacaceae and Anacardiacaceae families (Bullock et al. 1995). The soils are deep, weathered, leached, and acidic.

The savannah, or *pampa*, generally develops in poor, shallow soils, and areas of frequent fires, set by the Chiquitanos in the dry season to produce more edible grass for grazing cattle. The trees are short, thick-barked species that can survive the fires, and the grazing pressure of cattle. Grasses are an important resource of the *pampa*. They are important roof-thatching materials.

There are marked dry and wet seasons in Lomerio. Generally, July to September is the driest period of the year, and January to March is the wettest period. In Concepcion, there is on average about 30 mm of rain in July and about 235 mm of rain in January (Navarro 1995). In general, there is a gradual decrease in average yearly rainfall from Concepcion, slightly north of Lomerio, to the San Julian River at the southern limit of Lomerio (Navarro 1995). The average annual precipitation for Concepcion is 1165.4 mm. The average annual temperature is 24.2 C. June to August are the coldest months when fronts of cold air, named *surazos*, charge up from the southern regions of the continent. October to December are the hottest months. There has been a drought in Lomerio and throughout the Bolivian lowlands from 1997-1999. During the study period, the drought intensified due to climatic conditions brought on by the El Nino phenomenon. The drought has resulted in many failed crops.

San Lorenzo: A Chiquitano Community

I lived and did the largest part of my research in the community of San Lorenzo, a community of about 250 people, almost in the middle of Lomerio. The community sits on a low hill that is nestled into a bend of the Río Zapocó. A larger hill sits to the north of the community, and the dirt road coming from Concepción climbs that hill, giving a view of the layout of the community. In the center of the plaza sits a large, ornately carved cross, made from the hardwood *cuchi* (Astronium urundueva) tree. Rural Chiquitano communities are reflections of the urban layout of the mission centers, such as Concepción and San Javier, and this can be plainly seen in San Lorenzo. The church building is the social and political center of the community, placed prominently on one side of the large, central plaza. It is not an imposing building, one story with whitewashed concrete floors and walls and a tile roof. It does, however, provide a focus point for the community. The church normally functions as a communal meeting place, school, and fiesta site, in addition to its role as a religious center. One community member in San Lorenzo told me, "The church is where we pray, where we dance, and where we fight."

Around the plaza, space is strictly marked into quadrants. Each family plot uses on average 1300 m², in which are located the house and the household garden. When new households are established through marriage or in-migration, the *alcalde politico*, or mayor, assigns the family a new quadrant. Streets and trails through the community are linear between neatly fenced household spaces. San Lorenzo is known throughout Lomerio for its oranges, most of them grown in the household gardens. In season, the community smells of oranges and looks as if it was built within a large orchard.



Figure 2. Diagram of the community of San Lorenzo

Two types of housing construction are found in San Lorenzo: an older form that utilizes locally-found materials and a more recent form that was part of an early 1990s development program of the local priest that uses materials such as concrete and tiles. The former consists of a simple wood construction with mud or adobe walls, earthen floors, and a thatched roof made from the *motacu* (*Attalea phalerata*) palm. Most housing compounds separate the kitchen from the house in a smaller adobe or wood building in which the cooking is done. The church houses consist of a frame of milled timber, white washed concrete floors and walls, and tile roofs. The materials for these houses were subsidized by the church, but still represent a considerable economic and labor investment in an area with few opportunities for cash income. The total cost of the church house is 5000 Bolivianos, or about \$1000 US, including labor. The church supplied the materials and the family was only expected to supply or pay for the labor, under trained church construction supervisors. The church built hundreds of these houses in the early years of the decade and now builds several per year.

Contemporary local politics can be read in the approaches to materials and design in housing construction. Less than half of the houses in the community of San Lorenzo, the primary site of research, were church houses. On first appearances, the two types of houses seem to represent two economic or social strata in the community, but it is more of a political division. The beneficiaries of the housing program were selected by the priest, and depended as much on the relationship between the family and the priest as on community standing. The Catholic Church has had a strong presence in Lomerio since 1958 when a large church was built in the community of San Antonio. Since that time the Church has been the largest provider of health and education services in Lomerio.

They have also held a great deal of control over the distribution of public funds. When the Chiquitanos formed their own representative organization, CICOL, and began to directly contact development NGOs, the Church, and one priest in particular, saw this a threat to their own development program, and more specifically, their control over local politics. The priest actively tried to discredit CICOL, and an open competition emerged between the priest, together with a small group of authorities from San Antonio (the largest village in Lomerio, 1039 residents), and the directors of CICOL for the right to political leadership in Lomerio. The priest attempted to win the Chiquitanos support by, among other things, building houses for families in the largest Chiquitano communities. The wealthiest family in San Lorenzo lived in a traditional home, and told me that they would never accept help from the priest. The Church houses, however, have acquired a certain status identification, and most families living in traditional homes are in the process of building their own *casas de materiales*, but using their own financial resources to acquire materials, for principle or political sake.

Of all the regional Chiquitano centers in the lowlands, only in Lomerio is Chiquitano, or *Besuro*, the native language, spoken on a large scale. Most adults are bilingual in both *Besuro* and Spanish. Increases in literacy and education in Lomerio among the younger generation have been mirrored by a subsequent loss in the native language. Many younger people in Lomerio only understand *Besuro*, but do not speak it. Many Chiquitano leaders are worried that the language will be lost in a few generations if more effort is not taken to teach younger people the native language.

Besuro was the *lingua franca* of the Jesuit missions, as there were possibly hundreds of different languages spoken among the tribal groups gathered in the missions.

The language is related to other Arawak languages, but is considered an independent and isolated language family (Metraux 1942; Reister and Suaznabar 1990). Today, the *Besuro* of Lomerio contains a growing number of Spanish words and structural grammatical characteristics.

The Past

The Jesuit Missions

Before the arrival of the Spanish, the area of eastern Bolivia was populated by a heterogenous array of cultural groups. Chiquito, aruak, tupi-guarani, bororo, zamuko/chamakoko, yaracare, and guato are the linguistic families to which the pre-Columbian groups are thought to correspond (Metraux 1949). The first Spanish to enter the area of Chiquitania proceeded from expeditions out of Asuncion beginning in 1535, culminating in the establishment of Santa Cruz de la Sierra in 1561. During this time thousands of lowland Indians were taken to work as slaves in the highland mines, such as Potosi, and many more died from the waves of old world epidemic diseases brought to South America by the Spanish (Sanabria 1973). From the founding of Santa Cruz until 1691, however, there were no Spanish settlements in the area of Chiquitania, and despite the great social and demographic transformations produced by disease and slavery, the different cultural groups of Chiquitania remained relatively autonomous (Parejas and Suarez 1992). However, in the 18th century European politics and the growing rivalry between Spain and Portugal for control of South America would soon affect Chiquitania profoundly.

In the late 17th century the tribes of eastern Bolivia became the target of slave hunters from Brazil (*mamelucos* or *bandeirantes*), looking to supply labor to the growing

plantations on the coast of Brazil. In 1691 Spain assigned the Jesuits the mission of pacifying and bringing Christianity to the tribes of the eastern lowlands in an effort to consolidate the Spanish colonial effort in the face of increasing Portuguese expansion from the east.

The ethnogenesis of Chiquitano identity and culture can be traced to the policies of the Jesuit *reducciones* that were established in eastern Bolivia between 1692 and 1767. With the increasing pressures being felt from slave hunters and military expeditions from both the Spanish and Portuguese colonial centers, many of the lowland tribes voluntarily opted for the lesser of evils which was the Jesuit missions. Notably, many groups, such as the Ayoreo, simply moved into more remote areas, and never settled onto the Jesuit missions (Riester 1976; Riester and Suaznabar 1990).

The indigenous groups that came to the missions brought their distinctive cultures: their languages, religions, political, and economic systems. However, the systematic process of acculturation implemented by the Jesuits required the concentration of the different populations in the missions and the sharing of one language. The name Chiquitano is taken from the one language that was selected by the Jesuits as the *lengua franca* of their politico-religious mission organization. What is known today as the Chiquitano culture is the result of an intense intercultural mix, as well as a strong effort in evangelization and assimilation on the part of the Jesuits.

The Jesuits founded 10 missions in the Chiquitania. There were around 37,000 Indians living in the 10 missions in 1767, the year of the expulsion of the Jesuits from South America (Parejas and Suarez 1992). Within the *reducciones* each ethnic group occupied their own space and was allowed a degree of autonomy in self-governance.

However, each group was represented by a *cacique*, or chief, appointed and educated by the Jesuits, who was integrated into the political religious hierarchy of the mission.

Together the *caciques* formed a counsel of authorities, or *cabildo* (Albo 1966).

According to Riester and Suaznabar (1990), the goal of this system was to weaken and replace the religious and political roles of the traditional leaders, the *Mercurr*, and to replace native religious rituals with catholic rituals. The Chiquitanos had to place all political and ritual power in the hands of the Catholic religion as the Jesuits implemented a rigid system of sanctions regarding participation in and administration of the Catholic masses.

The Jesuits also instituted a new economic model, aimed at converting the Chiquitanos into sedentary farmers, concentrating more on agriculture and cattle-raising, and less on hunting, fishing, and forest collecting (Parejas and Suarez 1992). They also introduced rice, sugarcane, and citrus crops.

The Jesuits controlled and directed work in the missions. Three days of each week had to be spent working for the mission, and the other three days were spent on individual lands (Albo 1966). The surplus produced on the collective lands was redistributed by the priests, and was used primarily to acquire materials for the construction of the missions and the ritual fiestas that were a strong part of mission life. According to the Jesuit writers, surplus was only transferred out of the mission when it was used to acquire tools and materials that could not be produced within the mission (Albo 1966).

On the one hand, the Chiquitanos were forced to recognize the authority of the Jesuits in the political and religious spheres of the missions. On the other, some

ethnohistorians have noted that the Chiquitanos were not completely passive in accepting the colonial model imposed upon them (Krekeler 1995; Schwarz 1993). The Chiquitanos continued to look for a level of adaptation between the colonial order and their way of life before the missions, and they developed strategies to adapt the new model to their own interests. Here I want to briefly sketch a few of the ways in which indigenous autonomy was expressed and maintained within the missions. This is important for illustrating that the system of acculturation imposed by the Jesuits was not all-encompassing, and that the resulting Chiquitano culture cannot be viewed as solely a Jesuit product.

The new economic model introduced by the Jesuits did not completely substitute for the need for hunting, fishing, and forest collecting. Even with the new cultigens and cattle, part of the mission population was allowed to leave for 2 or 3 months to pursue game and fish, and to collect forest products (Schwarz 1993). Jesuit sources report that there was considerable resistance to the newly imposed rice-based diet, and that fish and game persisted as much more valued foods compared to domesticated meats (Schwarz 1993).

Hunting, fishing, and collecting were activities that were not under control of the Jesuits, and as such, allowed the reproduction of a cultural identity based on ancestral beliefs and social patterns as part of *cazas sacrales*. On these treks and hunts the traditional authority figures, the *Mercurr*, reasserted their position in the social and political spheres of Chiquitano society (Schwarz 1993). This dual life, part in the mission, and part in the forest, allowed the Chiquitanos to reinterpret the Catholic religion, and to create a synthesis between ancestral religions and the ideas and beliefs

promoted by the Jesuits. The reproduction of this duality and synthesis was the process of ethnogenesis for the culture Chiquitano.

Much of the organization within the mission was based on a dual system of collective labor and common lands, tools and resources, as well as individual parcels, tools, and production (Albo 1966). This was similar to pre-mission patterns, and allowed the continued practice of using kinship as the organization of labor and the distribution of produce, game, and domestic meat. The produce from collective fields, the *Cultivos de Dios*, was distributed based on directions from the Jesuits. This was done mainly at the level of the *cabildo*, so that the Chiquitanos had a great deal of control over distribution at the level of the *parcialidades*, represented by the individual *caciques* in the *cabildo* (Schwarz 1993).

The above discussion is by no means an attempt to downplay the drastic changes brought to the indigenous peoples of Chiquitania during the time of the Jesuits. This was not a slow process of cultural reinterpretation and adaptation. It was a rapid, forced change in lifeways, and much of their previous society and culture was lost forever. Catholic religion became, and continues to be, a dominant force in Chiquitano life and society. In fact, most ethnohistorians agree that along with the imposition of one language, the rituals and the beliefs of the Catholic religion catalyzed the cohesion and solidarity of the dozens of cultures that were brought together in the missions (Albo 1966; Parejas and Suarez 1992). The cohesion was complete to the point that all previous tribal identities have been lost, and the dispersed peoples that represent the descendants of the 10 missions all identify themselves as Chiquitano.

Secular control under the Cruceños

With the expulsion of the Jesuits in 1767, the missions passed into the control of Spanish colonial administrators and they opened the door for the increased penetration of the national society. "Cruceños," or people from Santa Cruz, dominated the mission centers and quickly moved to appropriate the labor of the Chiquitanos who were moved spatially from the center to the periphery of mission (Balza Alarcon 1994). The mestizos introduced the *encomienda de servicios personales* in which they took control of all decisions regarding the freedom, the land, and the work of the Chiquitanos. Communities and the individuals in them were integrated into the ranches, and they were considered property of the patrons (Riester and Suaznabar 1990).

Superficially, the mission economic system was maintained. The Chiquitanos were still forced to work three days a week without compensation, but unlike the system of redistribution under the Jesuits, surplus was not distributed for the use of the indigenous population or for fiestas, it was used to increase the wealth and economic power of the elite.

The response of the Chiquitano population was to move away from the mission centers into more remote areas. In these forest communities they reproduced the spatial organization of the missions with a central plaza, church, and surrounding houses (Schwarz 1993). The mestizos, or Cruceños, followed them into these more remote areas with the intention of expanding ranching and farming lands, and also to take advantage of Indian labor. So, not only did the Chiquitanos lose control of the mission centers, they also began to lose control of the land and the use of natural resources as more and more

of their territory was appropriated by the whites (Riester 1976; Riester and Suaznabar 1990).

The *cabildo* system of the missions was maintained in the Chiquitano communities even though the state did not recognize their political legitimacy. The state set up a local political system of appointed governors and mayors, *corregidores* and *alcaldes*, creating a dual system, one officially recognized and the other only recognized in the community. The Catholic ritual system was maintained as well as the Jesuit influenced production system: farming and ranching complimented with hunting, fishing, and forest collecting (Balza Alarcon 1994).

The Rubber Boom: the beginning of *el tiempo de esclavitud* (the time of slavery)

Between 1880 and 1945, the duration of the rubber boom in the Amazon basin, thousands of Chiquitanos were forced to move to the north in the Amazonian sections of Bolivia. There they worked the rubber forests under slave-like conditions for the national elites and international companies. The life expectancy of the Chiquitano workers was between 3 and 5 years, and very few actually managed to leave or escape the work and return to their communities (Schwarz 1993). Amazonian diseases, which they had not previously contacted, quickly killed many of the Chiquitanos, and returning or escaping workers spread many new diseases through their home communities, creating another wave of epidemics.

The economic wealth generated during the rubber period resulted in another expansion of farming and ranch production in Chiquitania (Sanabria 1973). More landholding elites moved into the area, taking land from the Chiquitano, and once again they appropriated labor from the Chiquitano. Chiquitano men and women were forced to

work two weeks of every month on ranches for a pittance and a little food. The patrons used the traditional martial leaders of the Chiquitano, the *caciques*, to enforce work requirements. *Caciques* were paid by the patrons to ensure that community members were fulfilling their "service," and infractions were dealt with harshly, in most cases with the whip. Lomerio was founded by Chiquitanos who came to the area to escape the rubber labor "recruiters" and the abuses of the patrons in the larger towns of Concepcion, San Rafael, San Ignacio, and San Miguel. The present day residents of Lomerio refer to this time as the *el tiempo de esclavitud*.

The Twentieth Century

The War of the Chaco (1933 to 1936) between Bolivia and Paraguay also had a profound effect on the Chiquitanos. Most directly, thousands of men died fighting the war. Indirectly, they lost territory as landlords took advantage of the men's absence to expand the size of their holdings (Riester and Suaznabar 1990). Many of the returning soldiers were forced to move to remote areas such as Lomerio in order to resume farming¹. During this time several new communities were formed in Lomerio. Lomerio, however, was not isolated from the patron system. A number of ranches were established in the 1920's and 1930's, and the Chiquitanos were again forced to work two weeks for the patron and two weeks in their own fields. Many older residents stated that the Chiquitano experience in the Chaco War initiated the process of transculturation as many of the men came in contact with people from different areas in Bolivia. This same period

¹ Much of the information concerning the history of Lomerio in the twentieth century was taken from interviews with older residents .

is also said to be the beginning of the abandonment of the Chiquitano language, the importance of kinship, and the native rituals.

If the Chiquitano participation in the Chaco War initiated a degree of westernization in the Chiquitano communities, the agrarian reform of the 1950s completely assaulted indigenous communal values with the concept of western property rights. Elites in Santa Cruz attempted to use Agrarian reform to dismember Chiquitano territory by dividing traditional community territory into individual parcels (Riester and Suaznabar 1990). In Lomerio, the patrons used legal title to not only expand their ranches and fields in unoccupied space, but also to appropriate land that was directly held by communities.

The Chiquitano response, as throughout their history, was to move to more marginal areas. In Lomerio, more than half of the communities were founded in the late 1950s and early 1960s as Chiquitanos were pushed aside by land hungry ranchers. The community of San Lorenzo, which was the focus of this study was founded during this period by a group of young families that were moving away from abusive ranchers.

The Chiquitano survival strategy had always been to move into more marginal areas when threatened by outsiders, but beginning in the 1960s two things occurred that began to change the Chiquitano strategy. First, the scale of migration into Chiquitania by different groups had increased to the point that there were few remote areas left into which they could escape. Second, many Chiquitanos had acquired at least a minimum of education, and many more had traveled to other parts of Bolivia, either for work or through the obligatory military service. These people brought back some weapons that the Chiquitanos could use to fight the threats to their land and identity.

Recent History: The Struggle for Autonomy

After the revolution of 1952 there was a dramatic increase in unions and agrarian cooperatives and syndicates in the Andean areas, but these organizing efforts did not begin in earnest in the eastern lowlands until the late 1950s and early 1960s (Reister 1983). The Chiquitanos of Lomerio used the syndicate to fight the patrons and end the service requirements throughout Lomerio. One of the syndicate founders described the conflict as follows:

The patrons lived in Totoca and Holanda. They would come and ask us "What are you doing in your house?"

We responded, "Working my little field."

"This is worthless," they said. "Come with me to work."

In my house I had chickens, cattle, and pigs, but I had to abandon them to fulfill my work requirement.

"No use," he said. "It is better with me." This is how my patron was.

But in '50 and '51 I went to my military service and when I came back the patrons called me. I went to work for two weeks. I traveled by wagon to San Jose. I carried supplies from here. Today it has changed - from Santa Cruz they bring rice, sugar - before, from here they carried sugar, rice, peanuts, corn - each wagon loaded. For the patrons I had to carry 120 bags of cargo to San Jose and afterwards return here. I didn't like it. No. I fled and went to Cotoca to live.

After some time I came back to look for a wife. I did not like how the patrons bothered everyone here. If you didn't do what they said they gave you a whipping. I was gone for six years. For six years I was there. And because I had cattle here I came back.

I came to this place to live, it was pretty savannah, no more. There were only 5 small houses here. I built my house here and afterwards the patrons followed. They came with the whip again.

We formed a syndicate. I was secretary. I said to the people like I had learned in Santa Cruz, "Come here and let's form a group of 200 people." They came from San Antonio, La Asunta, Puquio, Palmira, Santa Rosario, and Florida. We made 29 hectares near the riverbank and 11 hectares on the other side of the river. We planted 2 tareas² for each person with peanuts. Afterward we went to Santa Cruz to get orders to gain freedom for ourselves. After that the authorities came from Santa Cruz and gathered all of the patrons together and asked them why they treated us so badly. And the patrons said that they did not treat us badly - they gave us things and paid us a salary. But the authorities saw the money and

² 1 tarea = 1/10 of a hectare

the nice clothes of the patrons and they gave the patrons a whipping like they gave to us, right there in front of everyone. And from then on the patrons could not take the campesinos away like slaves again. (Bruno Suarez, San Lorenzo, August 20, 1997)

While the abuses of the patrons ended in the early 1960s, the presence of the state increased in the mid-1960s and accelerated rapidly in the early 1970s. A basic school system was established in Lomerio and a series of development projects were initiated. At the same time more young men and women began to migrate out of Lomerio in search of work, and the local economy began to increase its dependence on remittances. The traditional authority system of the Chiquitanos, the *cabildo*, was almost completely destructured by the state through the process of municipalization and cantonization that replaced traditional leaders with a new political-administrative system. Older residents point to this period as the beginning of an intergenerational rupture that resulted in less use of the Chiquitano language among the younger people.

In 1982 the Central Intercommunal Campesina del Oriente Lomerio (CICOL) was formed. In its eighteen years of existence CICOL has won some notable victories in the fight for Chiquitano interests, but most importantly they have transformed the relation of the Chiquitanos to the dominant society from a passive to an active resistance.

The Chiquitanos view their recent history with pride; their defiance and victory over the patrons, and their successful expulsion of the timber and mining companies. CICOL sees its own survival in the face of political challenges from the church and local state-appointed politicians in this same vein. The identity of a defiant and resistant people is one that is heartily embraced and projected to outsiders.

Visitors are common in Lomerio, as the forestry management project has garnered a great deal of publicity as a model for indigenous development/conservation projects in South America. Groups hoping to start similar projects in other areas often come for a tour of Lomerio. These tours are led by the CICOL directors and always begin with a history of CICOL and the Chiquitano fight for land and control over the forests. They stress their struggle to overcome the domination of the patrons, their battles with timber and mining companies, and their efforts to promote self-determination and the value of Chiquitano culture.

The Daily Routine

The day begins in San Lorenzo with the sound of wood-chopping. Women rise early to get the day's cooking fire lit. Men and children rise shortly after, busying themselves with preparing for school or the day's work in the fields. The cattle, horses, donkeys, and pigs on the plaza awaken, and the air comes alive with the sounds of animals. Radios blare from the houses, and the men call to each other from house to house, organizing work crews for the day's tasks. The morning meal is quick and light, usually leftovers from the previous night's meal, maybe rice and meat, or some yuca and plantains washed down with some *chicha dulce*, a thick, sugar-sweetened corn drink, that is the staple of the Chiquitano diet. In its fermented form, it is the center of Chiquitano social life.

The men and older boys head off to the fields with tools in hand: axes, hoes, and machetes. Everyone carries a plastic jug of *chicha* to quench his thirst. The Chiquitanos practice swidden agriculture, sometimes referred to as slash-and-burn cultivation. A single field is cleared, burned, and planted. Each year a new planting regime is used to

take advantage of the natural recovery of the soils and regeneration of vegetation. In San Lorenzo, corn and rice are planted in the first year or two, and then fruit trees are planted in later years. Families have different fields in different stages of cultivation spread around the community. Most are within an hours walk or less, but some are 2 hours away.

The children, scrubbed, combed, and dressed in bleached white uniforms, file through the lanes of the community as the teachers ring the bells calling them to class. San Lorenzo has three teachers. Two of them are natives of the community who were taken to a teacher training school by missionaries in the 1970s. The church and another building serve as the community schools up to fifth grade. Almost all of the communities in Lomerio have a primary school (grades 1 - 5), but to continue past the fifth grade students have to either go to El Puqio el Cristo Rey (up to grade 8), or San Antonio (up to grade 12). In San Antonio, communities have built houses for the students from their communities to live in while completing their studies. Most of the teachers are from Lomerio, and have been trained either by missionaries or by the bilingual teacher training program in San Antonio. Throughout Bolivia teacher strikes are common, and educational resources are scarce, meaning that classes are often suspended for weeks at a time, and when there are classes, few books or basic supplies are available. The rural teachers often have a difficult time getting paid, and may ask local families to help supplement their small salaries.

A 1992 census found that 38.1% of the residents of Chiquitano communities (Lomerio and Concepcion) were illiterate. In the same census, the illiteracy rate for the Department of Santa Cruz as a whole was 11.1%, and for the province of Nuflo de

Chavez, in which Lomerio and Concepcion are located, the rate was 26.9% (INE Census 1992). These statistics show the huge differences between rural and urban education, and more pointedly, indigenous and non-indigenous educational services.

Despite the problems in education in Lomerio, an increasing number of young people are graduating from high school. The Church has begun to sponsor scholarships for high school graduates to enter the universities in Santa Cruz and Cochabamba. Table 1 shows the dramatic differences in literacy rates between males and females and in older and younger generations in Lomerio. In persons 15-29, the illiteracy rate is only 4.9%, and the difference

Table 1. Literacy rates by age groups and gender in Lomerio.

Age Group	Literacy Rate	Males	Females
15 - 29	95.1%	97.1%	92.8%
30 - 44	69.2%	80.6%	55.9%
45 - 59	35%	47.3%	21.8%
60 +	18.1%	25.4%	8.4%
ALL	73.2%	79%	66%

Source: VAIPO 1998

between males and females (males 2.9%/females 7.2%) is not pronounced. However, illiteracy rates rises to 30.8% for persons aged 30-44, 65% for persons 45-59, and 81.9% for those over the age of 60. In the older generations, literacy rates for females is significantly lower. These statistics show that there has been tremendous improvement in education in Lomerio within the last two decades. Most residents point to the efforts of

the Catholic Church and missionary groups, rather than to the national government, for these improvements. While this is certainly true over the past 30 - 40 years, recently the national government has made some improvement in expanding educational programs to rural areas.

By eight o'clock in the morning, the streets of San Lorenzo are deserted except for women and the young children. From the schools comes the sounds of singing and children repeating their lessons. The women begin their daily tasks: going to the river to wash clothes, cooking lunch, tending the ever present pot of *chicha*, collecting firewood, and caring for the children. Some even find time to produce crafts that are sold in a cooperative in Santa Cruz. At certain times of the year, they also work in the fields, but the daily tasks are constant, year-round activities.

At lunchtime, wives or older daughters take meals to the men in the fields. They carry pots of rice and meat to the men, and return to their homes loaded down with firewood. The men work until late afternoon, and then return to their homes before nightfall, unless they are going to stay in their fields to hunt.

Chiquitano informants are quick to point out that hunting has declined in importance in Lomerio as a protein source because wildlife has become more difficult to find in sufficient quantities. Some of the older men attribute the scarcity to the logging activities. They say that the chainsaws, trucks, and bulldozers have scared away the game. Others point out that game densities were declining from overhunting long before the logging began. A number of areas some distance from the main population centers still are rich hunting grounds, and men from the community make multiple day trips in

search of deer, peccaries, and tapirs, but primarily hunting is done in the fields near home where armadillos are easily found.

Within the family, males do the majority of the hunting. The most common weapon was the .22 rifle, and most hunters use dogs. Dead-fall traps were also common. Rifle and dog owners often lend their weapons to other hunters from the community. They are paid with a share of any meat taken. Guinart (1997) found that in one Lomerio community, the average amount of game meat consumed was 48 g/person/day³. Ruiz et al. (in press) found that 32 different species were hunted in Lomerio: 24 mammals, 6 birds, and 2 reptiles. Armadillos (Dasybus novemchintas) were the most frequent prey taken, but gray brocket deer (Mazama gouazoubira) (40%) and collared peccary (Tayassu tajacu) (13%) accounted for the most biomass. Species such as the tapir (Tapirus terrestris) and the red brocket deer (Mazama americana) are believed to be rare due to overhunting (Ruiz et al. in press).

For those not staying out in the fields to hunt, the evening is a time to relax with the family. After darkness falls, the men and women go to the stream to bathe. The stream near San Lorenzo is rocky and made up of a series of waterfalls. During the rainy season it can be swift-moving and dangerous, but most of the time it is gentle and slow-moving, if not stagnant. After dinner, neighbors visit, and children do their homework. Electricity has not come to San Lorenzo yet, but many families have propane lamps, and these have extended visiting hours until much later than was previously common. Radios play until about ten o'clock at night, and then the entire community settles in for the night.

³ Western et al. (1979) found a range of 18 g/day to 72g/day among indigenous groups in South America.

Church service is held every Sunday. The priest occasionally makes visits to the communities to conduct Mass, and his position as a religious authority garners deep levels of respect. He must divide his time between his large parish church in the community of San Antonio, and the other 28 communities of Lomerio, so visits are not common. Masses conducted by the priest were always followed by energetic fiestas. When the priest is not there, community members conduct services. Persons responsible for conducting the service are trained in workshops at the main church in San Antonio, and the Church sends materials and instructions weekly to the communities throughout Lomerio. In San Lorenzo, the church leaders were all younger people who were good speakers and could read the materials sent from San Antonio.

Seasonal Round

Agriculture in Lomerio follows the swidden, or slash-and-burn pattern, using ash as fertilizer. Each field, or *chaco*, that is opened can be used for three to five years, depending on the soil. To avoid impoverishing the soils, crops are rotated. The general pattern for the richest soils is that rice and corn are inter-cropped the first year (occasionally with beans). Manioc and plantains are planted the second year. The third year corn and rice are replanted among the manioc and plantains, and in the fourth year manioc or sugar cane is planted. Fruit trees are often planted after five years. After a field is abandoned, around fifteen years are needed before the land can be brought back into production.

The agricultural cycle in San Lorenzo begins in June at the beginning of the dry season soon after the last harvests of the previous cycle. The dry season is "winter" in eastern Bolivia. Cold fronts, named *surazos*, roar up from Antarctica, bringing strong

winds and temperatures that drop below freezing. In the dry season water becomes scarce. The stream ceases to flow, and the water becomes unfit for drinking. Families send their children loaded with plastic jugs to a spring located about half a mile from the community. The spring water is silty, and foul-tasting. Everyone eagerly awaits the slightest rains. They set rain barrels for capturing drinking water at every corner of the house.

In June and July, the field sites are selected and the boundaries marked. Next, the underbrush is cleared with machetes, and the trees are felled with axes. *Mingas*, and other forms of cooperative labor are an important aspect of Chiquitano agriculture. There are few chainsaws and no tractors available for land clearing, nor are there mechanized harvesters. Farming technology is limited to axes, machetes, shovels, and hoes, meaning that site preparation is a labor intensive and time consuming process. Chiquitanos rely on a variety of labor sharing systems to accomplish many of the tasks in the agricultural cycle. *Mingas* are used most commonly to clear underbrush from new sites, to weed second-year or third year fields called *barbechos*, and to harvest rice. On these occasions up to 40 or 50 men and women, depending on the task, may participate, and a job that would take weeks if undertaken by one family, is completed in a few hours. In return the workers are fed dinner, and the host family provides two pots of alcoholic *chicha* for a fiesta.

Preparing two pots of *chicha* involves a great deal of work. The pots have to be boiled for almost two complete days. Firewood has to be collected, and the pots need almost constant stirring. This job is normally the responsibility of the teenage or adult women in the family. Dinner for 40 or 50 is also a large economic investment since meat

is an essential part of the meal. *Minga* workers expect meat. A pig or a large number of chickens have to be killed for the meal. A *minga* is not just a fiesta, it is a serious economic and social investment made by families, and it works because of reciprocal obligations. Families know that they have to participate to ensure that other families would come if they called a *minga*.

Work groups are often used in the site preparation phase of agriculture. These groups are temporary and vary from two or three members up to six or seven. In the past, these groups were organized along kinship lines, for example, a group of brothers would work together, but in recent years group members are just as likely to not be related. Everyone attributed this to *evangelico* converts who formed non-kin based work groups. The converts have since left the community, but the tradition of non-kin based work groups has remained.

The group rotates daily among each of the members' fields, clearing underbrush and tree felling. The leader of the group changes daily depending on whose field the group is working. The leader is responsible for directing the work, and is obligated to supply a meal for the workers. The composition of the group may change, but once a worker has the group work their field for a day, the worker is obligated to spend a day in each of the other members' fields.

After the trees are felled and the underbrush is cut and piled up, the field is allowed to dry for at least two months and then it is burned. A good, thorough burn is absolutely essential, so often there is a second burn in which remaining brush is piled up and burned. The end of August or beginning of September is traditionally the most favorable time to burn, but in recent years a series of droughts have made it more difficult

to predict the optimum time to begin the burns. Grazing lands for cattle are burned at the same time as the fields, so a great deal of smoke is produced. The burns tinge the sky with a gray haze night and day.

Planting begins after the first couple of rains when the soil has begun to retain moisture in the top 6 or 7 centimeters. This time usually occurs between October and December. In general, corn is planted first, then rice, and then peanuts.

Peanuts are the only Chiquitano crop raised solely for sale. In recent years the price for peanuts has dropped dramatically and few people are planting the crop. My survey of Lomerio found that 92.3% of the families planted corn, 76.4% planted rice, and only 26.8% planted peanuts. Of the families who planted the crops, they planted on average 7.4 tareas of corn, 5.1 tareas of rice, and 4.4 tareas of peanuts. Manioc and plantains are important secondary crops. Sugar cane and beans are also important in some areas. In the community of San Lorenzo, citrus production has become an important income source, but this is rare in other communities in Lomerio. Other fruits such as papaya, watermelon, and pineapple are found in small quantities, as well as pumpkins, squash, and sweet potato. One NGO, in an effort to diversify the diet and improve nutrition, has promoted a horticulture system for household gardens, specializing in tomatoes, onions, and potatoes, but they have found only limited success in persuading families to adopt the crops.

The few months after planting are the most relaxed in the yearly work cycle. Weeding has to be done, but not everyday. December to March is traditionally a time when there are more fiestas including the week long celebration for Carnival, and young

men released from daily work in the fields leave the community to look for wage labor jobs.

Chicha parties are an essential part of community life in Lomerio. *Chicha* is brewed for birthdays, special visits, national holidays, the community patron saint fiestas, and cooperative work parties, or *mingas*. Beer and *aguardiente*, or cane alcohol, are also consumed in Lomerio, but because of the cost they are usually only drunk in small groups. *Chicha* is always drunk in large groups according to a standard ritual.

The host or hostess, called "*el dueno/la duena de la chicha*," the owner of the *chicha*, makes a speech regarding the occasion of the fiesta, and selects a person to be the honorary server. This person makes a short speech and then selects a small group to accompany them to another room where the clay *chicha* pots are stored. The server stirs the pots, fills a bucket with a gourd, and then invites each of the people present to a drink. The server covers the pot and carries the bucket back to the main party where they in turn serve each of the people present at the party. The server's duty is to serve everyone present one time from each bucket, and to refill the bucket, always accompanied by a small group which takes a drink in the room where the *chicha* is kept. Other people serve each other from the bucket also, and the server is often invited to drink after they have served someone, but no one is allowed to serve himself or herself.

Music and dancing are important parts of the fiesta. Chiquitano music is a unique blend of indigenous drums, lowland campesino folk songs, and European baroque music and instruments. During the 17th and 18th century the Jesuits taught the Chiquitanos how to make and play cellos, violins, guitars, and woodwind instruments. In the mission centers these instruments are still common. In the rural villages it is rare, but not

impossible, to find cellos or violins. Most music is played with drums and reed flutes. Different flutes, as well as their corresponding songs, are played at different times of the year, with religious holidays, such as Carnival, Christmas, and Easter marking the musical seasons.

Musicians march in a tight circle and the dancers circle them. Man and women both ask each other to dance, but only when contemporary popular songs are played do dancers pair off. Everyone holds hands high in the air and marches around the musicians until a signal is given from the musicians to change the direction of the dance. At the end of each dance, the dancers all invite each other to a drink of *chicha*.

When a *chicha* pot is finished the host and the honorary server both give a speech thanking all of the guests for sharing the *chicha* with them. If there is another pot, the host announces it, and selects another honorary server. If there is not another pot, the party breaks up and moves to another house where there is more *chicha* waiting.

Chicha parties are an important factor in the strength of community bonds in Lomerio, but *chicha* plays a much more important role than that of social elixir. The corn used to make *chicha* is the central aspect of Chiquitano agricultural production and the *minga* system of reciprocal labor sharing.

There are numerous sources of wage labor in and around Lomerio. There are a number of non-Chiquitano ranches inside the territory of Lomerio, and these occasionally hire local people on a temporary basis. Ranches near the town of Concepcion are also common sources of employment. In January and February many of the men look for temporary wage labor while they are waiting for the harvests to begin. Many of the younger, un-married Chiquitanos move on a semi-permanent basis to the city of Santa

Cruz to work. The young, unmarried women work in domestic service, and the men most often work in menial, low-paying jobs on construction sites, though some have received training through the forest management project and work as heavy-equipment operators, chainsaw-operators, mechanics, and truck drivers in other areas of the Bolivian lowlands. The young women who move to the city normally do not return to live in Lomerio. Most often they marry and live permanently in the city, only coming to Lomerio for visits. The young men travel back and forth between work in the city and on the ranches, helping with the family fields, and work on the forest management project, either in logging or in the sawmill. The forest management project and its role as a source of employment will be described in detail in chapter 4.

Table 2 shows the breakdown of employment in Lomerio based on my survey of male and female household heads. Of the household heads, 63.6% worked outside of their communities for wage labor in 1996. These were all men. None of the female household heads worked outside of the communities. Of the household heads, 25.9% worked within the community for wages or a salary. This included teachers, a few jobs in forestry management, and a variety of jobs with the church for those who lived in San Antonio.

By late March, the harvests of corn and rice begin. Harvests continue through April and into May. Mingas are common during this period especially for rice harvests. Mingas during harvest time are as much a reflection of the desire to celebrate and gather the community together, as they are a technique to harvest quickly. Most families food stocks from the previous harvest have dwindled, and everyone is ready for new corn.

Table 2. Comparison of days working for wage labor for the communities of Lomerio.

Community	# of fams. surveyed	% work out of commun.	Ave. # days work	% work in commun.	Ave # days work
San Lorenzo	20	35	48	25	217
Coloradillo	10	40	68	10	2
San Pablo	9	78	64	11	30
Fatima	10	70	62	30	29
Florida	10	90	23	40	13
Santa Anita	8	71	19	0	0
Todos Santos	10	100	81	20	11
Las Trancas	10	100	39	30	4
Puesto Nuevo	9	67	35	22	104
El Cerrito	10	20	81	20	44
San Martin	6	33	120	17	3
Palmira	12	33	176	50	94
Surusubi	12	50	126	17	121
Santo Rosario	11	46	20	18	2
San Simon	10	80	48	0	0
Monterito	12	100	139	50	9
San Antonio	21	19	149	67	189
La Asunta	10	70	40	70	16
San Jose Obrero	10	100	30	10	14
Salinas	10	70	76	10	22
Average	11	63.6	72.2	25.9	46.2

Chicha made from the first corn harvested is said to be an elixir of renewal, a tonic that returns youthfulness. Coming near La Pascua, or Easter, harvest-time is a completion of the yearly cycle, but to the Chiquitanos it is viewed more as a beginning - a time to strengthen community ties through celebration and sharing. Soon after, the cold *surazos* arrive, and the cycle begins all over again.

Conclusion

As I explained in the first chapter, I tried to divide my time equally between the community of San Lorenzo and the CICOL offices in Puquio. These were contrasting experiences. In San Lorenzo, I participated in and observed the activities described in this chapter, and I have tried to relate that experience in a way that provides a glimpse of what life is like for most Chiquitanos living in Lomerio. In Puquio, I worked in an office and studied an aspect of Chiquitano society that is not part of life for most Chiquitanos. The CICOL directors are not people from the city who have come out to the countryside to organize the campesinos. The directors come from communities like San Lorenzo, in fact, the President is from San Lorenzo. They also clear and plant fields. They send their children to schools in Lomerio. They dance and drink at *chicha* parties. However, they also find time to work for CICOL, and participate in all of the activities that keep the organization going. The next chapter describes the organization, and begins a discussion of how indigenous people are beginning to engage the wider world on their own terms. In this engagement, CICOL is not separated from the aspects of life that make-up the Chiquitano experience. They are firmly rooted in the cycles described above, and it informs and guides their work.

CHAPTER 3

CICOL AND DEVELOPMENT AGENTS: ORGANIZATION AND INTERACTION

The community of Puquio El Cristo Rey (The Christ King) is about 5 kilometers from San Lorenzo. Puquio has become the locus of a large part of Chiquitano political life. CICOL, the Chiquitano political organization, has built its offices there, and a sawmill, purchased by the Chiquitanos with Dutch funding, has set up operations in the community. The community acquired its standing not solely because of its central location in the region. Many of the families in Puquio have been active in fighting for Chiquitano autonomy for decades. They have been the fiercest opponents of the ranching patrons, the "pirate" timber companies, the priest, and government-appointed officials. Many of these families were instrumental in organizing CICOL, securing international funding, and establishing the organization as a legitimate and recognized political institution for the Chiquitanos of Lomerio. The people of Puquio have acquired a closed, cold, and conflictual reputation by the non-Chiquitanos who work in Lomerio. It is this stubbornness though, that has made their efforts at political organization so effective.

CICOL represents a new level of political organization for the Chiquitanos. The Chiquitanos have never had inter-communal political institutions. Prior to CICOL's establishment, traditional political organization stopped at the level of the community. CICOL is, however, a distinctly Chiquitano organization, maintaining a purely consensus-based decision-making style that can be found in community political decision-making.

The organization has overcome many opponents and mistakes to become the main center of political authority in Lomerio. It still has many problems, however, and the people of Lomerio have become increasingly critical of the organization in recent years.

The rise of CICOL is not disconnected to events outside of Lomerio.

Organizations like CICOL have become common in other indigenous communities throughout Bolivia and the rest of South America (Yasher 1997; Macdonald 1998). In the past few decades Latin America has experienced a couple of related developments that are transforming: 1) the relationships between indigenous peoples and the state and 2) indigenous peoples ownership, use, and management of land and resources. The first development has been a wave of political organizing among indigenous communities. International linkages, national and regional confederations, and local, inter-communal organizations have proliferated across Central and South America. Secondly, there has been a swift rise in the number and influence of non-governmental organizations (NGOs), as international donors have shifted funding from public to private sources. Environmental and human-rights organizations have brought financial support from international donors and unprecedented political leverage to the struggles of indigenous peoples for land and autonomy. Both of these trends have had a great influence on the direction of Chiquitano sociopolitical organization.

This chapter introduces the major actors in local politics and development within Lomerio. I describe the organizational culture of the different institutions working in Lomerio; CICOL, an NGO named APCOB (Apoyo para Campesino Indígena del Oriente Boliviano), and a governmental agency BOLFOR (Bolivian Sustainable Forestry

Management Project), a joint project of the United States and Bolivian governments. I begin by discussing the history and role of CICOL within Chiquitano political life. I describe the structure of each of the three organizations in terms of the different roles, division of responsibility, the activities, history, and sources of funding. After this initial description of the organizations I enter into an analysis of the guiding perspectives and philosophies of each, delving into the norms and values that guide action. This invariably leads to the conflicts in philosophy and action between the organizations. I examine how the groups interact with each other: areas of conflict, cooperation, and the process of "facade-building" that characterizes their relationship.

CICOL: A Grassroots Indigenous Organization

The office for the Central Indígenas de Comunidades Originarios de Lomerio (CICOL) is a non-assuming whitewashed concrete building at the entrance to the community of Puquio. It has one large meeting room in which most of the organization's activities are located. It also has a small communications room with a solar-powered short-wave radio and three donated solar-powered computers. Another small room contains the organization's archives made up of files full of correspondences with other organizations, government agencies, and international funders.

The officers who make-up of the CICOL directorate come from different communities in Lomerio. They arrive most mornings by motorcycle or one of the NGO trucks that serve as an unofficial bus service for the region. CICOL meetings are always open affairs and local townspeople move in and out of the office all day long, many stopping by to participate, or just to watch and listen to whatever subject is being

discussed that day. Residents of communities all over Lomerio travel to the offices to discuss problems that they are having. They often complain about church or government officials in San Antonio, or problems they are having with NGO personnel. Often they are seeking payment for work that they have done for CICOL..

CICOL represents 28 Chiquitano communities (about 1200 families or 5500 residents). It was founded in 1982 at the same time as CIDOB (*Confederacion Indigena del Oriente Boliviano*), a regional organization that has tried to link the influence and efforts of indigenous peoples and their individual political organizations throughout the lowlands. From the beginning, CICOL has shared the institutional dynamics and structure of CIDOB.

The initial impetus of CIDOB and other tribal organizations was the struggle to defend and gain title to communal lands. As the land issue began to be resolved in the late 1980s, at least partially, CIDOB began to focus on political, economic, and cultural development, facing problems related to production, education, health, language, and culture. These same issues and policy demands were reflected in the intercommunal organizations, such as CICOL with a more locally specific focus. CIDOB's influence over organizations such as CICOL has waned through time as the smaller organizations have received development funding independent of CIDOB.

In the first years of its existence CIDOB attempted to coordinate with well established organizations of Andean farmers. As such, the organizational structures of CIDOB and the associated grassroots indigenous organizations are modeled on the older and more well-established agrarian and labor syndicates of the Andes with positions that

match issues of concern to the organization. Through the years this structure has been adjusted as interactions with governmental agencies and national and international NGOs have become more important than alliances with Andean organizations.

While ethnic political organizations, such as CIDOB and CICOL, looked to the unions initially, there are important differences. There is little interest and little understanding of the ideological concerns that pervade the union movements of the highlands (Smith 1984). While unions have been controlled by urban elites who have tried to dictate policy to their base, the ethnic federations have kept control at the community level, especially so with the grassroots organizations, and to a lesser degree with the regional federation CIDOB (Smith 1984). There has also been an overriding distrust of alignment with political parties. The indigenous organizations generally have a rigid, basic set of political goals and these positions are seen to be incompatible with the perpetual compromises, shifting coalitions, and flexible party ideology that pervade Bolivian politics.

CIDOB, CICOL, and the various organizations share certain general structural features. Power emanates from a General Assembly that meets yearly and at other times when important decisions arise. Delegates from each of the member communities meet to make the major decisions about goals and activities of the organization and to elect the directorate. In Lomerio the delegates consist of five representatives from each of the 28 communities, or 140 voting delegates. The five delegates from each community are the *alcalde politico* (a position not recognized by the government, sometimes termed the native mayor), the president of the OTB (*Organizacion Territorial de Base* - the official

government recognized community representative), representative of the Mother's Club, representative of the *Comite Comunal* (Communal Committee -an official CICOL community representative), representative of the *Junta Escolar* (School Union - body which oversees issues of education in the community). In addition, other community representatives and members of organizations such as CIDOB are invited to participate in discussions, but not allowed to vote. Church, government, and NGO officials are invited to attend as observers, but are not allowed to participate in discussion unless their opinion is specifically requested. Decision-making in the General Assembly is an open and participatory affair. The expression of opinions is encouraged, and discussions usually continue until it is agreed that a certain level of consensus has been built. Votes are normally a formality since decisions are not put to the vote until agreement has been established.

The General Assembly lasts up to three days. All of the delegates have to be transported, housed, and fed for the entire time--all at CICOL's expense. The organization is expected honor the community representatives as the real heads of the organization. The General Assembly is viewed as the time when the organization is not made up of just the officers and directors, but all of the residents of Lomerio. The meeting is as much about expressing unity as it is about solving problems. However, problems are solved. It is when the officers are selected, budgets and proposals are approved, and the entire course for the organization is set for the year with the complete approval of the people of Lomerio. Any topic is discussed at length to make sure there is unanimous support for any resolutions that are made.

In the 1997 General Assembly, discussion was especially heated concerning the selection of a replacement for one of the eight positions that make-up the CICOL directorate. One of the candidates was from Puquio, where the CICOL office is located. The other candidate was from a community farther out. This exposed a common critique of CICOL, that it only served a few communities such as Puquio and San Lorenzo in the center of the region. Representatives from some of the peripheral communities demanded more representation. The discussion lasted for most of one day. Supporters of each candidate argued their points repeatedly. Finally, the supporters of the candidate from an outer community conceded that the candidate from Puquio should be elected, but they hoped the CICOL directors would heed their complaints about paying attention to the outer communities. A vote was taken, and the Puquio candidate received all 140 votes.

Much more was communicated in the discussions than a straightforward election debate. Later, when the budget was discussed, there was a pointed effort on the part of the CICOL directors to direct money and projects to the outer communities. In the weekly community meetings of San Lorenzo that I attended, this same style of decision-making existed also. The *alcalde politico* directed the meetings, but more as a mediator. Everyone in the community was encouraged to express their opinion, and most did. Any decisions had to be made with almost complete agreement. When an issue arose that generated strong disagreement, it might be discussed for an entire night, literally until the sun rose, and then put aside to be discussed at the next meeting. I was told that

Chiquitano authorities are given power to discipline when someone goes against the will of the community, but they are not to dictate rules on their own accord.

The traditional authorities of the Chiquitano communities were the *caciques*. Each community had one *cacique* with 3 or 4 *consejeros*, or advisors. Together, the *cacique* and the *consejeros* made up the *cabildo* (Riester 1976). Today, the authority of the *caciques* has been replaced by an *alcalde politico* elected yearly in each community, accompanied by 2 to 4 *caciques* in each community. This arrangement is no longer referred to as the *cabildo*. These officials direct meetings, meet with visitors, and direct community work projects. State power is represented by a *corregidor* and 4 assistants appointed by the sub-prefecture. Their office is located in San Antonio, and they are the state-recognized authorities for all of Lomerio. Recently, with the passage of the Law of Popular Participation a new state-recognized system of OTBs (*Organization Territorial de Base*) has been created to give communities a voice in the distribution of municipal funds. OTBs are recognized by the mayor of the municipality, but have little power in their home communities. Within communities, the president of the *junta escolar*, or school union, organizes community decisions and discussion concerning educational issues. The president of the *club de madres* represents women's voices in community decisions.

Authority and political structure in Lomerio have changed dramatically during the 1990s due to legal developments at the national level and power struggles at the local level. Like many indigenous peoples in the Americas, the Chiquitanos have struggled with dual systems of authority, one recognized by the people and the other put in place by

the state. Then, the organization CICOL was created and Lomerio soon had a three-level political system: the community level, the government/Church level, and now the inter-communal level, which had never existed previously. From late 1980s and through the 1990s these groups have all grappled for power. CICOL has emerged with a tenuous hold on political authority in Lomerio, and its system of community representation has created a new inter-communal system of decision-making. The inter-communal system has worked by bringing the community recognized leaders listed above together with the leaders recognized by national law together into the governing body, or the *Asamblea General* of the organization, distributing authority equally.

The CICOL Directorate

At the top of CICOL are the 9 directors. The directors are divided into administrative positions and specific coordinators of issues in which CICOL is working. There is a president, vice-president, secretary-general, treasurer, secretary of land and territory, secretary of environment and natural resources, secretary of gender, secretary of education, and secretary of health.

Juan Soquere is the President of the organization. Don Juan lives in the community of San Lorenzo. He quit his job as a teacher to take the position of president in 1996. He was selected after a group of directors were accused of corruption and removed from office. He was chosen because he was seen as an honest person who did not have a financial stake in the development project.

Being selected as director, especially as president, is a prestigious position, but it is also a liability. A director's standing increases in the community, but they also become

the targets of rumors of corruption. From the moment I arrived in Lomerio, I heard from community members the constant rumors about corruption among the directorate. The directors were not paid a salary, and they have to spend most of their available work time in the office. Any petty corruption that occurred only amounted to small compensations that kept their families fed. Being a director is difficult financially, and most have to get help from their extended family in clearing, planting, and harvesting their fields. Don Juan told me that he would be indebted financially and labor-wise for years after his four years as president are finished.

There are a group of older men who provide guidance to the organization. These men were trained in labor union organization in the 1970s, and many participated in the founding of CICOL. They have since stepped down from director positions, but they are heavily involved in the organization, and at times exert a dominating influence on decisions the organization makes. They are always unofficial directors of the organization.

Most of the directors are men, but three women have served as directors. Most are young, at least under the age of forty. The duties of the directors require that they are literate, and most have graduated from high school. A few, like Don Juan have received some professional training past high school. According to informants, directors are chosen based on their perceived ability to work with outside agencies, and to communicate ideas from the Chiquitano communities to the agencies. They are expected to express Chiquitano values and ideals, and at the same time, "capture" projects (wording used by an informant) that promote economic development in Lomerio. This

requires a special flexibility. I was told that good directors can translate the interests and ideas that are found in Chiquitano communities into forceful and uncompromising terms of negotiation with outside agents. They can also explain those negotiations in meetings with Chiquitano community leaders. The directors have to present a strong, inflexible face to the outside, and carry a humble, subservient attitude in the communities.

The directors get to travel as a part of their jobs. Most travel regularly to the city of Santa Cruz, and occasionally to the capital of La Paz in the highlands. In the past, directors have traveled to international conferences in other parts of Latin America, the United States, and Europe. The directors are generally people that are curious about the world outside of Lomerio, and are relatively skilled at dealing with outsiders. Don Juan and other directors said that travel, and meeting so many different kinds of people is one of biggest attractions of the job.

The president is by far the most important position in the directorate. The primary responsibilities of the president include the convocation and organization of the General Assembly and other regular meetings. The president represents the organization in local, regional, national, and international meetings. The president signs all contracts, agreements, and financial documents of the organization, and is in charge of supervising all of the programs in which CICOL participates.

The president is selected based on the person's astuteness in the structure and behavior of the governmental bureaucracy and national and international funding and technical support agencies. A good president has strong communication skills in reporting to the member communities the goals, accomplishments, and failures of the

organization, establishing and maintaining contact with outside support agencies, and in representing the needs and interests of the people to government agencies. Of course, this is a rare person who can combine these talents, and most of the past presidents have excelled in one of the areas, but suffered in the others. In one case, the president became extremely skilled at attracting international attention to CICOL and the struggles of the Chiquitanos. Because this leader spent a good deal of time traveling to international conferences, internal communication suffered and the communities lost confidence in the ability of the organization to take on and accomplish concrete tasks that affected their daily lives. In contrast, other presidents have proven inept at navigating the complex Bolivian bureaucracy and this has brought many of CICOL's projects, such as the progress of land titling, to a complete standstill.

Once, explaining the difficulties of being the leader of CICOL, Don Juan told me that he has to have two faces; one that he uses to meet with his people, and the other for when he has to "face the jaguar." The "jaguar" refers to all of those outside of Lomerio: government officials, international project financiers, and NGO personnel. This dilemma summarized the precarious position of CICOL. All of the directors were caught between the expectations of their fellow Chiquitanos for representing their needs and interests, and the interests and requirements of NGOs and government agencies, which largely determined the availability of funding and resources for the different projects that CICOL wanted to implement. In many cases the difference in expectations between the community members and the outsiders is marked.

While the president provides the direction and motivation to the organization and is the primary representative of CICOL to outside interests and individuals, it is the actions of the individual secretaries and the directorate as a whole that determines if CICOL moves forward in accomplishing the tasks it has set out for itself in Lomerio. Within CICOL, leadership is fluid and any director may take charge of certain issues and push his or her own agenda. Decision-making is based on consensus building, so, normally action is not taken until all of the directors are more or less in agreement. All of the directors have their special responsibilities, but all of the directors are usually involved to some extent in every activity in which CICOL is participating. This makes the organization extremely united. This is important for a group whose authority and decisions are constantly being challenged and attacked from many different directions: from individuals in the member communities, government agencies and officials, the Church, and workers from the various NGOs. At one point in early 1998 there was a strong effort by some of the community leaders to have the president replaced. This was actually accomplished in a mini-General Assembly, but the rest of the directorate rallied support for Don Juan, called another General Assembly, and had him reinstated.

Of the other administrators in the directorate, the secretary is in charge of keeping minutes of all meetings, maintaining the organization of the archives, and producing the letters, circulars, and other documents produced by CICOL. The treasurer's main responsibility is keeping track of all of the funds being used by CICOL and providing a proper accounting at the end of the year with all of the appropriate financial documents.

Besides the president, one of the most important directorships is the Secretary of Land and Territory. This secretary works specifically on all of the issues relating to the Lomerio land demand. It is a difficult position that requires knowledge of the Bolivian legal system and the complex idiosyncrasies of the government bureaucracy. This secretary spent a good deal of time in Santa Cruz working in the offices of INRA (*Instituto Nacional de Reforma Agraria*). While I was in the area, this secretary helped government consultants produce a report entitled Identification of Spatial Needs in the Lomerio Communal Land Demand. This report provided historical, demographic, economic, and cultural arguments for the titling of the 300,000 hectare area being demanded. It was one of the required steps on the way to full titling of the demand.

The Secretary of the Environment and Natural Resources was a position that was created when the responsibilities of the Secretary of Land and Territory grew with the expansion of the forestry management project, a project which initially was directly just a part of the strategy to promote the land demand. The largest responsibility of this secretary is the Communal Plans that are the basis of the joint APCOB-CICOL project in Lomerio. The communal plans are strategies to match the resources, personnel, and skills of the Lomerio project with the needs, goals, and interests of the communities. The secretary along with a counterpart in APCOB directs a series of participatory meetings in the communities to see how the forestry, agricultural, animal husbandry, health, gender, and education programs can be implemented within the community.

Both the Secretary of Health and the Secretary of Education have limited formal responsibilities in the organization, mainly because of the lack of funds and resources in

these two areas. Their primary responsibility is to lobby government agencies for improvements in services: school and health post construction, health training, teacher training, equipment, books, and above all financial resources. Since there is little money to support large-scale lobbying efforts, these two secretaries spend the majority of their time assisting other secretaries and in participating in the daily office meetings.

Finally, the Secretary of Gender is perhaps the most ambiguous position in the directorate. The position was created as a result of the financiers' requirement that gender issues be included in all aspects of the Lomerio project. The position is held by a woman (the treasurer is also a woman), and her participation was more symbolic than actual. Her primary activity was to accompany the gender extension agent of APCOB to the various meetings and workshops she held with the Mothers' Clubs in the communities. By her own account she has little responsibility in the organization. She attended most of the meetings in the CICOL office, but did not take an active part in the decision-making. In fact, she only spoke when someone directly asked for her opinion on an issue, and this was more likely to be an issue concerning her home community, one of the largest in Lomerio, than an issue concerning gender. Her position and the entire issue of a gender project was controversial in Lomerio, and I will discuss this in more depth ahead.

Institutional Objectives: Norms and Philosophy

CICOL presents itself as an institution created by and maintained by the people of Lomerio. Their goal is to promote development and to protect the culture and interests of Lomerio. This orientation has produced an organization that has actively sought avenues for economic development while at the same time fought for legal protection from

outside intrusions into their territory. First and foremost, their founding objective is to obtain legal, communal title to the territory of Lomerio. They are in the final stages of achieving that, but it has taken years to wade through the slow, Bolivian bureaucracy.

The organization was founded because of timber companies that were moving into Chiquitano territory. The initial objective was clear--get those companies out! They were successful. Since then, the objectives of the organization have not been so clear-cut. CICOL began as a small organization, and has since grown. They have become managers of a large development project with international funding. In many of the members' opinion, the organization is having to spend too much of its time trying to secure funding, and justifying the funds that it presently has. These requirements are leaving too little time or resources to accomplish the larger, overall goals that are the basis of the organization. Many people in Lomerio complain that the objective of the organization has become economic survival and expansion rather than action at the ground level.

CICOL's statutes detail the specific objectives, functions, and obligations of the organization. According to the document, the organization is dedicated to improving the productive capacity of the members through improving transportation services, obtaining fair prices for products, obtaining credit, and training members in technical skills. There is also considerable emphasis on the need to improve the ability of the organization, the member communities, and individuals to participate in the local, regional, and national political processes and institutions.

Buried within the statutes (that were written twenty years ago) is an objective that states that the organization should obtain a forestry concession to provide a permanent defense of the territory against invading companies and colonists. When the Chiquitanos received the forestry concession, they also discovered that they were required to manage the forest and submit management plans. They contacted some NGOs for help, and this led to international attention, funding, and a much larger logging and forestry operation than they originally thought they were starting.

The change in this objective from a small part of the strategy to receive land title to a large-scale profit-driven enterprise has created conflicting opinions regarding CICOL. Some communities have resisted giving CICOL control over their forest resources. Some community members, and even some of the CICOL directors, see this as outside of CICOL's original range of functions and responsibilities. So far, this view has been outweighed by those who see the project as a valued source of jobs and income, and they are unwilling to dispense with the project, no matter their possible misgivings about its growing scale. This point is a constant source of discussion within CICOL, as it is the one area in which the organization is unsure of how much authority the communities are willing to grant.

There are a number of objectives in the statutes that speak of CICOL's role in defending the "identity and ancestral culture," or the "cultural integrity" of the Chiquitanos. In this case, CICOL is validating its authority by claiming to be the true protector of Chiquitano "customs, religion, economy, and politics." However, the structure of the organization is unlike any existing or traditional political structure. The

organization is modeled after Andean syndicates and unions, and the secretary positions have been created as reflections of the government agencies and NGO organizations with whom they interact. The claim of being cultural defenders is important, however. Speeches given in CICOL meetings are often begun with exhortations for the directors to fight for "*ancestrales derechos consuetudinarios*," or ancestral customary rights. In a series of early 1990s political struggles between CICOL and government-appointed officials in San Antonio, a number of documents were distributed to the residents of Lomerio, stating the case of each particular side, and accusing the other of certain deeds. These documents nearly always begin with a list of accomplishments that support claims as the true defenders of the cultural values, rights, and interests of the people of Lomerio, and the actions of the other group that undermine and weaken cultural integrity and unity.

The political victories of CICOL's early years, and the expansion of funding have led many to believe that the organization can quickly raise incomes and the standard of living in Lomerio. The organization is trying to accomplish that very thing, but the obstacles to wealth and economic improvement in Lomerio are large and complex. Many former directors said that the organization has been most effective when it is most threatened, especially by outsiders. Now the organization lacks strong identification with a concrete cause or objective founded in terms of the resistance to outside intrusions or struggle for Chiquitano autonomy. This occasionally leads the organization to create conflicts with the NGOs and government organizations working in Lomerio. In the absence of real enemies, they take on the organizations and their policies in an effort to assert their autonomy, and to show their potential militancy. I will now turn to looking at

two of the development organizations that work in Lomerio: APCOB, an indigenous support NGO, and BOLFOR a government financed sustainable forestry project.

APCOB: An Indigenous Support Organization

The organization APCOB arose out of the anthropological research and activist activities of the German director, Dr. Jürgen Riester. After conducting research in the late 1960s and early 1970s, Dr. Riester formed APCOB to work in the defense of indigenous rights for the different groups living in the Oriente of Bolivia. One of APCOB's projects was the start-up of a regional indigenous organization, *Central de Pueblos y Comunidades del Oriente Boliviano* (CIDOB). Through APCOB's influence, CIDOB was able to bring all of the indigenous ethnic groups of the Oriente into the federation. APCOB has played a mediating role between CIDOB and primary grassroots organizations of the different groups within the federation. Through their contacts with financiers, they have been instrumental in securing financial resources for the organizations since the early 1980s. In the case of CICOL and Lomerio, APCOB was instrumental in convincing the people of Lomerio to start a forest management project, and then found the funding agencies to support the project.

In Lomerio, APCOB has a wide-ranging set of projects. They work closely with CICOL on the forest management project. They provide technical forestry assistance, share in the administration of the sawmill, conduct gender workshops, animal husbandry training, a native seeds project, loans for agriculture and animal husbandry, an agroforestry nursery, legal aid, and institutional capacitation.

All of these projects mean that APCOB has a permanent presence in Lomerio. In fact, they have constructed a field station in one of the communities, and a varying number of field workers rotate through the station on two week shifts. There are 11 staff members assigned to work in Lomerio on an on-going basis, and a number of other staff members who came to the field for specific workshops or meetings. The permanent staff included the field manager, two forestry technicians, an agronomist, the nursery supervisor, a veterinarian, two sociologists (including one gender specialist), a sawmill mechanic, the sawmill administrator, and the sawmill accountant.

The APCOB staff lives in a field station constructed in the community of Fatima. Most of the staff are young, recent university graduates. Almost all of the staff are Bolivian, but there have been German anthropology students who have worked for the organization while doing research in Lomerio. The composition of the staff belies one of the central problems in Bolivian NGOs--turnover. The field manager changed three times in the thirteen months that I was working in Lomerio. The other positions are also constantly changing. This is mainly a reflection of the amount of development money in Bolivia. There are so many projects that development workers use them as stepping-stones. They work for a few months with one organization, and then take a higher position with another organization. This creates problems for CICOL and the people of Lomerio. They have to constantly adjust to new people in the same role. There is little continuity. It also creates a level of distrust. The people of Lomerio do not see the NGO workers as dedicated or committed. They say that they are only looking for a paycheck.

One of the APCOB field managers, Carlos, explained many of the difficulties of the job to me. He was one these young, recent university graduates. He was from the highland city of La Paz, and had been working for APCOB for a few years when he came to Lomerio. Previously, he had worked on projects in the city. He said that many of the NGO workers have tremendous difficulty adjusting to working in rural communities. They are from the city and not used to many of the hardships that have to be endured while in the field. According to him, APCOB required their staff to be in the field much more than other NGOs (2-3 weeks per month). Many quit because of family obligations.

Carlos himself quit after a few months in the position because of disillusionment with the direction of the project. He saw the field operations through two evaluations: one by an ecological certification team that was to determine whether the Lomerio project could continue exporting timber certified as sustainably managed, and another by APCOB's financier from the Netherlands. He said that he saw those evaluations as a critical time to illuminate the problems in APCOB and in the Lomerio project, and to look for possible solutions. The APCOB directors, however, saw the evaluations differently and put tremendous pressure on Carlos to try and hide the problems in the project. He said that he realized that the main goal of the NGOs was to stay alive financially, the secondary goal was to complete their objectives in community development. He decided to leave APCOB, and immediately began working with another organization in the city of Santa Cruz.

Outside of development, there are few employment opportunities even for college graduates in Bolivia. The development boom has tremendously increased the number of

positions for professionals. Carlos said that he would like to teach classes at the university, but he would make half as much money as he did working for the NGOs. The lack of opportunity in other areas means that few development organizations are trying to work themselves out of jobs.

Organization and Structure

Dr. Riester is the executive director of APCOB. He has all decision-making power in the organization. He is accompanied by a number of sub-directors who work in planning and evaluation of the projects. The organization meets with a consulting board composed of academics, Catholic Church leaders, and indigenous leaders that examines the different activities of APCOB and provides suggestions concerning the general philosophical direction of the projects. Another group of outside consultants is brought in to train staff members. APCOB has four multi-disciplinary field teams corresponding to the four project areas in which they are working at present: the Lomerio team, the Concepcion team, the Izozog team, and a communication team which produces video and textual materials related to all aspects of the organization's work. The Lomerio team is by far the largest with the most staff and the largest percentage of the organization's budget.

Chiquitanos were to be trained in all aspects of the project to the point that they would manage the sawmill, forestry project, and local production projects without, or, with, at least, reduced outside assistance. Many Chiquitanos, including former and present directors of CICOL, feel that as the project has grown and expanded in scope, the Chiquitanos have become less involved in the planning and administration of certain

aspects of the projects and outside assistance has increased. This has created tension between APCOB, CICOL, and many local communities, and I will discuss this ahead.

The Executive Technical Council (CTE) was created by CICOL and APCOB as a system to promote skill and knowledge transfer between the technicians of APCOB and the people of Lomerio. Five young, educated (three had university training) Chiquitanos were selected to be the permanent, salaried counterparts of APCOB technicians and another six were named as unofficial, non-salary counterparts. The CTE is to be trained in managing the forestry project, administering the sawmill, agronomy, animal husbandry, gender training, etc., all of the skills that the APCOB technicians can provide. CTE is to become a consulting body for CICOL to draw upon in making decisions regarding the projects in Lomerio. APCOB hopes that the young CTE members will eventually become leaders in Lomerio, and will initiate their own projects based on the training they received.

CICOL complains that APCOB has done little to promote CTE training, but APCOB disagrees. The APCOB field manager stated that one of his most important goals for the Lomerio project was CTE training. He said that organizational politics between CICOL and APCOB has become so divisive that the only hope for progress in meeting long-term objectives for economic development and resource management, as well as reducing the paternalistic nature of the relationship between APCOB and Lomerio, is the strengthening of technical and decision-making skills in the CTE.

I found that the CTE was well trained and capable of taking over many decision-making responsibilities. The CTE members were sent to numerous workshops

throughout the research period, and most had detailed knowledge about the technical aspects of forestry management. CICOL did not want the CTE to take over responsibility for the project because that is their major source of power in their relationship with APCOB. CICOL could withhold action on the project to force APCOB to comply with its demands, be it budgetary compromises, or resources for the organization. CICOL repeatedly said that the CTE members were too young to take over the responsibilities (most were in their twenties or late teens), and that they did not understand the politics of the project enough not to be manipulated by APCOB.

Institutional Philosophy

A position statement released by APCOB states that the organization promotes a more meaningful political participation by indigenous people in Bolivian society, and an end to all lingering conditions of colonial oppression (APCOB 1996). The organization also supports economic development among indigenous people, but a development based in socioeconomic justice, gender equality, and the sustainable use of natural resources. APCOB is guided by a humanist philosophy oriented to the defense of cultural identity, social justice, and the territorial rights of the indigenous people of Bolivia. The organization has taken as its mission the support and strengthening of the indigenous movement as it has become manifest in the different representative organizations throughout the Bolivian lowlands. APCOB's projects are primarily in four areas: territorial demands, sociopolitical organization, gender issues, and culture (APCOB 1996).

APCOB implements their projects through a participatory and co-management process. Some of the positions listed above, such as the forest technicians, agronomist, and veterinarian, are technical in that they require professional training and skills. Nevertheless, these persons were also involved in the communal planning and "counterpart system" used to assess local needs and interests and to transfer skills and knowledge to local communities and individuals.

The basis of all APCOB activities in Lomerio is participatory communal planning. The staff directs meetings and workshops in the communities that identify and prioritize the needs, resources, and demands of each community according to specific age, gender, and local socioeconomic differences. The final result of the month-long communal planning meetings is a document that presents the community's demands and proposal for accomplishing the objectives set forth in the document. This document is used to link APCOB's resources, staff, and projects with community proposals, and to also incorporate community objectives into the Lomerio Annual Operating Plan (PAO) that is submitted to the municipal government through the local *Comite de Vigilancia*. APCOB planned to develop communal plans in four to five communities per year, and to cover all of the communities within five years. The communal plans were also a source of conflict as many viewed them as time-consuming and unproductive. A common complaint was that nothing was done to follow up the meetings. A plan was created and then no action was taken to meet the proposed objectives.

The Unavoidable Trap of Paternalism?

Sundberg (1998:86) argues that many NGOs assume a moral authority by defining which human-land relationships are most acceptable. This moral authority comes from possessing scientific knowledge, a certain "truth" about the natural world and humans' interactions with it. Possession of the "truth" invests the owner with power in relationships with those who do not have it. Most Chiquitanos would argue that it is not the possessor of scientific knowledge who holds the power, but the possessor of accounting knowledge. A few Chiquitanos have been trained in scientific forestry techniques, and their role in forest management process has increased. What has not increased is their control over project funds and the composition of the budget. Financial autonomy is the one area in which the Chiquitanos are most anxious to assume control and the area which APCOB seems least likely to relinquish command.

This was no more apparent than in the case of the forest management project. The project is the cornerstone of the 5 year plan held by CICOL and APCOB for Lomerio. Funded by HIVOS and OXFAM, the plan covered areas such as forestry, agriculture, animal husbandry, health, and education. The majority of the funds received by the organizations were controlled by APCOB, and they distributed to CICOL on the basis of the amount allocated to each area in the plan. To satisfy the financiers, most of the money was earmarked for the forestry section of the project. This meant that CICOL spent most of its time, personnel, and money handling the problems of a large-scale logging and sawmill operation, while the other aspects of the plan received scant attention.

Many of the communities in Lomerio did not even have forests that were included in the management project; and in those that did, most of the community members felt that the forestry project did little to benefit their communities. Furthermore, they wished that CICOL would work to improve agricultural potential or bring more health and education services to Lomerio. Most community members see the forest management project as simply another source of wage labor, and both APCOB and CICOL alike recognize that the people of Lomerio do not feel like they are the "owners" of the project.

CICOL realized that many of the Lomerio communities were dissatisfied with the scale and direction of the forestry management project, and there have been several attempts to restructure the plan. One of these attempts led to a confrontation between CICOL and APCOB that almost resulted in the expulsion of the latter from Lomerio. CICOL wanted to move money from certain areas of the plan to areas that would be more directly applicable to the communities. CICOL wanted to reduce the number of APCOB technicians in Lomerio, and take their salaries for projects directed towards improved agricultural production. The plan also contained sections that were direct requirements of the financiers. These included gender and communication components. These covered activities that integrated women into the different aspects of the plan, and video and publications that explained the goals and accomplishments of CICOL and APCOB in Lomerio. A group of women who made up the leadership of the most influential *Clubes de Madres* in Lomerio were strongly against the different activities that APCOB had begun as a part of the gender components of the plan. This included a permanent staff member who directed gender activities, workshops on family planning and legal rights

concerning domestic abuse, a small horticulture project, and series of diagnostic surveys on gender issues. These women claimed that the whole gender aspect of the project was irrelevant to them, and they wanted more focus on training in productive enterprises. In response, CICOL tried to move all of the money allocated to gender activities under their control. APCOB responded by explaining that if the money was not spent as it described in the plan they would receive no more money from the financier. That is, both APCOB and CICOL would be without funding. CICOL backed down, but reluctantly.

The confrontation revealed the paternalistic nature of the relationship between CICOL and the different NGOs in Lomerio. Both organizations are dependent on international funding for continued existence, but APCOB controlled the money, the structure, and content of the different projects in Lomerio. They wrote the proposals to the financiers, and even a year after the plan was implemented and the different projects begun, only a handful of Chiquitanos had even seen and read the plan, much less had any input into its creation. APCOB made the decisions and distributed responsibility and resources to CICOL as they saw fit.

CICOL, for its part, contributed to this dependency in the relationship. They deferred to APCOB in making the big decisions about the direction of different projects and failed to capitalize on opportunities to assert their autonomy. The General Assembly is a yearly meeting in which community representatives meet with CICOL to determine planning for the year and to make decisions such as the election of directors and the approval of CICOL's operating plan for the year. Throughout the Bolivian lowlands Assemblies like CICOL's are events that reaffirm indigenous autonomy and

independence. It is an opportunity for CICOL to communicate to the communities what it is trying to accomplish and to receive feedback on what the communities consider to be important. Government agencies and NGOs, if present, are only allowed to play the role of spectators.

The General Assembly of early 1998 was a perfect example of the degree of dependency that CICOL has developed on APCOB. In one of the planning meetings in the week before the Assembly, the APCOB field operations director was alternately lectured for his intrusion into the internal affairs of CICOL and Lomerio and supplicated for funds to subsidize transportation and food costs for the delegates to the Assembly. He was told that he would have no role ("no vote and no voice") in the Assembly, but he was asked to foot the bill. The irony was not lost on the young man and he responded by denying the request for funds, saying that if CICOL really wanted to display its autonomy it would subsidize the Assembly with its own resources.

After the APCOB sociologist refused to participate in the planning meetings on the grounds that the Assembly was not about his goals for the year, but those of CICOL, preparations fell apart. CICOL did not present its own Operating Plan for the year. It simply presented APCOB's Operating Plan for 1998. Throughout the Assembly, CICOL directors and former directors repeatedly blasted APCOB for not paying attention to the needs and interests of Lomerio, and for not accomplishing anything even with control of all of the funds. However, they did not come up with one project or idea that was a part of their vision for Lomerio.

This led one community member to comment to me that CICOL is the *chaco*, or the cultivated field, of the directors. He was implying that the directors do not really want to do anything, they are just using their term in the position to get something personally, be it money or simply the opportunity to travel back and forth to Santa Cruz. This community member was not alone in his criticism of CICOL. There was little confidence that CICOL would actually accomplish anything of substance. The only reasons given for continued support of the organization were that it did provide a source of employment in different aspects of the forestry project, and there was the continued hope that the organization would eventually come through in gaining final approval of the land demand.

When CICOL was formed it had a clear goal in mind - the expulsion of private timber companies from Lomerio and the gaining of title to the land. The first goal was accomplished by the late 1980s and the possibility of land titling became real in the early 1990s. Then CICOL began to stagnate and charges of corruption became commonplace as the directors main goal changed to increasing the amount of foreign financial resources gained by the organization. Self-perpetuation became the primary guiding principle rather than concrete activities directed by goals that were founded on the needs and interests of Lomerio. To its credit, APCOB is aware of the degree of paternalism that has seeped into their relationship with Lomerio, and they are taking steps to reduce it, primarily their efforts in establishing the CTE as the sole managers of the forestry project. In the interactions between NGOs and grassroots organizations, group capacity building is the one dimension that is the most difficult to accomplish (Carroll 1992:95).

BOLFOR

The focused forest management work of the organization BOLFOR (Bolivian Sustainable Forestry Project), provides an interesting contrast to the more comprehensive, multifaceted involvement of APCOB. While the projects of APCOB are motivated by broad general objectives of social justice and economic development, BOLFOR has maintained a limited involvement in the affairs of Lomerio, concentrating solely on issues and activities that affect forestry management.

BOLFOR is not really a NGO since it is closely connected with and funded by USAID and ministries in the Bolivian government. It also receives funding and technical support from a consortium of private development and conservation organizations such as Chemonics International, Conservation International, and the Wildlife Conservation Society.

BOLFOR formed in 1990. It grew out of a series of planning committees sponsored by USAID, the United States Agency for International Development. On a general level, USAID was interested in funding projects that promoted sustainable forestry and stemmed deforestation in Bolivia. They brought in a group of planning teams to develop specific ideas. The teams were made up of foresters, economists, business leaders, and social scientists from Bolivia, other Latin American countries, and the United States. Jack Putz, a forest ecologist from the University of Florida, and a primary participant on these planning teams, said that the teams came up with specific ideas about the fundamental goals of the project. They decided that they wanted to provide Bolivian nationals with training; from the technician level to academic research.

They also wanted to work with large industrial concerns as well as rural communities. They decided to focus on timber certification, a process where forestry operations are certified as compliant with an international set of standards that are used as a benchmark for measures of sustainability. In return, the owners of the timber are allowed to market their timber as certified, hopefully leading to higher prices in the market.

The organization is headed by economists and foresters, and the work of the organization reflects their technical orientation. In Lomerio, they do not work heavily in community development like APCOB. They concentrate on technical consulting and training. At the national level they focus on policy. They helped create the position of Forestry Superintendent, a position that is mandated to enforce the nation's forestry laws. The new head of the *Superintendencia* is a former BOLFOR member, and many of its top officers have worked with BOLFOR. The organization's influence is deep. John Nittler, the team leader of BOLFOR, says that he has really tried to be just an advisor to the *Superintendencia*, allowing it to grow into its role without BOLFOR as a dominating force.

Mr. Nittler is an American, and there are a variety of nationalities represented in the organization. Americans have generally headed the research components of the project, and Latin Americans with experience in forestry development projects in other countries, such as Costa Rica have headed policy positions. Bolivians have been trained at all levels, and most move into government positions after a few years with BOLFOR. Mr. Nittler and Dr. Putz see training as the primary legacy of the organization.

BOLFOR was instrumental in having the forests of Lomerio certified. They have worked with CICOL and APCOB to improve the technical aspects of forest management and brought them up to certification standards. They have also been deeply involved in the marketing aspects of certified timber. Almost all of the international sales of Lomerio timber have been negotiated by BOLFOR.

Technicians from BOLFOR work with the Chiquitanos and the technicians of APCOB in all phases of forest management and the sawmill operation. They work on forest inventories, silvicultural treatments, road-building, and all of the phases of log extraction. Sawmill technicians work in the administration and operation of the sawmill.

BOLFOR's work in Lomerio also has a strong research component. They have supported a large number of thesis projects for Bolivian university students in forestry, biology, ecology, economics, anthropology, and business administration. They also support research projects by international students (including this study) and professionals.

While APCOB technicians have almost daily contact with Chiquitano communities, CICOL, and the Chiquitano project technicians, BOLFOR only works in Lomerio on specific tasks. Unlike APCOB, they have not become heavily involved in institutional development with the CICOL directors. The APCOB field directors are primarily social scientists who spend their time in the CICOL office and community meetings. BOLFOR field technicians are mainly foresters who work specifically on the problems of forest management. Their workers spend most of their time in the forest. BOLFOR's relationship with CICOL is primarily in the management and administration

of the sawmill. BOLFOR does have a social scientist on staff with experience in institutional and community organization, but during the period of research, this person was not working much in Lomerio.

Despite BOLFOR's limited sphere of involvement in Lomerio, or perhaps because of it, they enjoy a relatively amicable relationship with CICOL and the communities in which they work. In fact, BOLFOR comes under less criticism than APCOB from CICOL and community members. They are seen by many Chiquitanos as more effective and committed to their work.

While outsiders see BOLFOR and APCOB as completely different organizations in their origins, funding, structure, and philosophy, the Chiquitanos viewed them both as NGOs. They even referred to BOLFOR as an NGO, even though the organization is a US/Bolivian government project. In the communities, BOLFOR looked and functioned like an NGO. Young, college educated technicians moved around in expensive trucks dispensing technical knowledge and helping with technical problems. The goals that each organization had set out for itself in Lomerio were very different, but the people of Lomerio judged them according to the same standard—How did their work benefit Lomerio?

This type of public/private arrangement has its advantages. Smaller, private organizations, such as APCOB lack the secure funding and resources to implement many of their projects effectively (Bebbington and Farrington 1993:204). Unlike many private NGOs, BOLFOR does not have to spend most of its time looking for funding, and it can concentrate on the mission it has set out for itself. APCOB, while relatively more free

from formal relations with government institutions, is caught on the treadmill of short-term funding cycles.

Organization and Structure

BOLFOR divides their organization into 3 major sections; natural forest management, commercialization, and institutional strengthening and policy analysis. Natural forest management activities are aimed at producing a set of practices that promote profitable yet sustainable uses of timber and other forest resources. Since little research has been done on Bolivian flora and fauna, BOLFOR has promoted and sponsored the research needed to understand the important ecological dynamics of specific species and systems. The commercialization sector helps industrial foresters and community foresters identify markets where they can sell their wood. They also experiment with the potential marketability of Bolivian timber species, and forms of timber products. The institutional and policy aspect of the organization has worked to develop a forestry law for Bolivia, and to create a government agency for its enforcement. They have also been working to create an institution to oversee certification of sustainable forestry operations in Bolivia.

BOLFOR works with both private timber companies and community forest operations, so they have teams of technicians working in areas all over the eastern lowlands. The technicians are mainly young, recent male graduates from the national forestry school in Cochabamba in the highlands. They come to work with BOLFOR to gain field experience in developing management plans. Most hope to move on to lucrative positions with private timber operations or in government ministries.

Lomerio primarily has interactions with the natural forest management, and commercialization teams in the organization. The forest management technicians work with the Chiquitano forestry staff and the APCOB technicians to conduct tree inventories and censuses, develop management plans, and oversee logging operations. The commercialization team mainly works in the city of Santa Cruz, but they also advise the sawmill. Their main responsibility is to help the Chiquitanos find international buyers for their certified timber.

Goals and Objectives

BOLFOR's primary objective is to improve the capacity of public institutions, private companies, and communities to form and implement sustainable forest use programs. While the goal is specific, BOLFOR has been involved in a wide range of activities in support of sustainable forest management. They have worked to create a forestry law and began building a baseline of research in ecology, economics, and forest management methodology. They have put the research to use by helping commercial foresters and communities adopt sustainable management practices and comply with the forestry law. Two million hectares of forest have been certified in Bolivia. The organization has trained Bolivian professionals, and developed markets for "green" timber and non-timber products.

A central focus of the BOLFOR strategy has been the development and promotion of certification for sustainable forest operations. BOLFOR has worked to create a recognized certifying body in Bolivia. They have worked to have community forestry operations, such as Lomerio, and large private concessions certified. As enticement for

timber sellers to become certified, BOLFOR has worked to establish links between Bolivia and purchasers in Europe and the US who pay a premium for "green" timber.

In terms of policy, BOLFOR works to provide information and skills to government agencies for improving their ability to develop, implement, and enforce natural resource management policy. At present, policy enforcement capabilities in Bolivia are relatively weak, so BOLFOR has tried to influence the industry with studies of the economics of natural forest management and certified production.

Conspicuously absent in BOLFOR's work is a focus on community development. This is the primary complaint leveled against the organization by CICOL and APCOB. Recently, BOLFOR has hired a social scientist who has specialized in community forestry projects in the highlands. He wants the organization to begin working more heavily in community forestry, but recognizes that the momentum and orientation of the organization is against it.

BOLFOR keeps a specific focus on forestry management in Lomerio. Community development is seen as outside of their range of interest, expertise, and the mission of the organization. This contrasts sharply with the goals of APCOB which are more comprehensive and hence more complex. In much of the following discussion I refer to APCOB and BOLFOR as the "development organizations." I recognize that they are very different in type, style, structure, and funding, but from the point of view of Chiquitanos they are really very similar.

Organizational Interactions: CICOL, APCOB, and BOLFOR

Relations between these organizations must be termed as tensely cooperative.

Among the three, APCOB and CICOL work most closely together, but their relationship is full of conflict and disagreements. All three of the organizations have their own operating styles and specific objectives. This often leads to confrontation. Socio-cultural and economic differences influence the relationship as well. The interactions are defined by a great deal of "facade-building," or posturing, meant to influence the other organizations into helping to further their objectives. CICOL occasionally threatens to end the project and kick APCOB or BOLFOR out of Lomerio. BOLFOR and APCOB have different responses to these threats because of the types of organizations that they are, but both illustrate important points about the relationship between local communities and development organizations.

In this section I will describe how the process of facade-building is played out, and the effect it has on the organizations. Another factor with important implications for the success of the project is regional cultural differences. Most of the development workers for both APCOB and BOLFOR are *Kollas*, or highlanders, and the Chiquitanos are all *Cambas*, or lowlanders. Finally, I will examine how the differences in the organization's approach to working with communities prevent needed cooperation from occurring.

Kollas and Cambas

Regional identities are strong in Bolivia, particularly in comparing the highlands and the lowlands. Geographic separation, cultural heritage, and political history have

created a great deal of tension and outright resentment between highlanders and lowlanders. These cultural differences play an important role in the relationship between the Chiquitanos and the APCOB and BOLFOR staffs, as the majority of the persons working for the organizations are from the highlands, and the Chiquitanos share many of the negative experiences and beliefs of the lowland peasantry regarding highlanders.

The people of the southeastern lowlands are called, by themselves and others, *Cambas*. It is a term used with pride by lowlanders to distinguish their culture, history, and society from the *Kollas*, or the highlanders. Stearman (1973;1976;1978;1985) has written extensively of the recent wave of migration of *Kollas* (beginning in the 1950s) to the lowlands of the *Cambas*. *Camba* culture is a mixture of lowland Indian, highland Indian, European conquistadors and colonizers, and African slaves escaped from Brazil (Stearman 1985:20). *Kollas* are primarily of Quechua or Aymara descent.

The lowlands have been isolated from the highlands throughout most of Bolivia's history from the early colonial days until the revolution of 1952 (see Sanabria 1973 for a history of the lowlands). The seats of political power have always been localized in the highland cities of La Paz, Sucre, and Cochabamba. Santa Cruz was not even connected to the highlands by road until the 1950s. It has only been in the past few decades that *Cambas* have begun participating in national politics in a meaningful way.

One of the defining events in the history of *Camba/Kolla* relations was the Chaco War (1932-1938) with Paraguay. *Cambas* were the primary foot soldiers of the war with few allowed to take positions of command. It was a bloody war, and the *Cambas* suffered most of the casualties. In *Camba* versions of the war, they say that *Cambas* were as likely

to be shot in the back by Kollas as they were by Paraguayans (see Heath 1959 for oral accounts of the war experience from the Camba perspective). The war was lost by Bolivia, and far from serving as a unifying event, it deeply ingrained a fierce regionalism (Heath 1959).

Both *Cambas* and *Kollas* hold stereotypes about one another. Most *Cambas* feel that *Kollas* are tough, hard workers, but greedy, untrustworthy, cold, and dumb. In return, *Kollas* characterize the *Cambas* as spontaneous and carefree, but lazy, drunkards, and philanderers (Stearman 1985:208). These stereotypes are found at all levels of society, and still remain strong even with the high degree of highland migration to the lowlands.

These stereotypes and the resentment of *Cambas* toward the *Kollas* affects relations in Lomerio. Most of the oldest Chiquitano men participated in the Chaco War and the stories of *Kolla* brutality are a part of the Chiquitano memory. In the same vein, the highland stereotypes of the Camba emerged in the development workers' statements about and interaction with the Chiquitanos.

Both APCOB and BOLFOR are headed by foreigners, but their workers in the field are primarily *Kollas*. There are several reasons for this. First, the national forestry college is in Cochabamba, a highland city. Almost all of the Bolivians working for BOLFOR, and the forest technicians for APCOB are Cochabambinos and graduates of this college. The Bolivian social scientists working for APCOB are mainly Paceños, or residents of La Paz, and graduates of the University in La Paz. Also, there is a longer history of community development in the highlands, and most of the workers got their initial field experience on highland projects.

On several occasions development workers explained to me that the shortcomings of the project could be attributed to the Chiquitano or *Camba* lifestyle. They would say that the Chiquitanos were too lazy to make it work. The workers were primarily from urban highland areas, but many are of Indian heritage. Several spoke Quechua or Aymara. They were not making racist statements since they too were of indigenous descent; they were making regionalist statements. They would make similar comments about the BOLFOR truck drivers who were all *Cambas*, but not Chiquitanos. These ideas are deeply ingrained in Bolivia, and they affect the way that all sides approach each other in the context of the project's activities and the arenas of joint decision-making.

The Chiquitanos are not innocent of stereotyping either. In private, they told me to be watchful of the *Kollas* working in Lomerio. According to the Chiquitanos, they were not to be trusted. How do you achieve effective cooperation between groups when one believes the other is lazy, and the other believes the one is dishonest and untrustworthy? These attitudes were the foundation of much of the conflict and lack of communication in Lomerio.

Facade-building

Soon after I arrived in Lomerio a crisis arose in the CICOL office. APCOB had provided the office with a copy of the upcoming year's budget for the project. The CICOL leaders became upset about some of the items on the budget, and about the disparity in the amount of money that they controlled as opposed to the APCOB leadership. CICOL called a halt to all project activities and demanded that the APCOB

executive director come to a meeting in Lomerio. They spent a week drawing up a list of demands that they felt had to be met if they would continue to allow APCOB to work in Lomerio.

On the day of the meeting, the crowd that gathered was so large that the meeting had to be held outside. CICOL directors, Chiquitano project workers, and community leaders all were present along with many of the NGO representatives. CICOL brought out a video camera to document the meeting and everything that was said by both sides. The atmosphere was tense.

The executive director of APCOB arrived and the meeting began. The meeting went back and forth. CICOL would make accusations and talk about present and past grievances. Then, the executive director and the other APCOB representatives would defend their side of the project. On several occasions the meeting reached what seemed like an impasse. On a couple of such occasions, the executive director packed up his papers, thanked the Chiquitanos for fifteen years of working together, promised no hard feelings, and began to walk out. The rest of the APCOB representatives, who were suddenly out of a job, sat with stunned looks on their faces. Before the executive director left the room, however, CICOL called him back in for more discussion, and the negotiations continued.

After twelve hours, the meeting finally concluded with both sides agreeing to continue working together. The atmosphere was tense at the close of the meeting, but both sides were smiling and joking with each other. The APCOB field director, a recently graduated anthropologist who had been in Lomerio for less than a month,

commented on how worried he had been that APCOB was leaving Lomerio. The APCOB executive director laughed and said, "You just have to get used to how we negotiate out here."

In many ways that was how things did get done in Lomerio: threats, counter-threats, and bluffs. I often heard NGO staff saying that it was about that time of year when CICOL threatened to kick everyone out. It was a joke to most. No one could tell me how this style of "cooperation" had begun. Development workers said that it was the hardest part of working in Lomerio. They never knew when CICOL was going to suddenly change its mind about how things were going and start making threats. CICOL expressed frustration that they had to result to threats to get APCOB and BOLFOR to listen to them.

The reasons are not difficult to comprehend. APCOB and BOLFOR hold the most power in the relationship with CICOL. They control the finances, the equipment, and the technical knowledge. The only areas in which the Chiquitanos control the project are in labor supply and access to Lomerio. Access is the more important control, because it is something that the organizations need. A development organization or project without an area to work in does not continue to receive funding for very long. APCOB was more susceptible to these threats than BOLFOR since the majority of their activities were in Lomerio. BOLFOR concentrated on a couple of different areas, and at the time of research was scaling down their involvement in Lomerio. Also, being a USAID funded project, they did not have the same degree of funding pressures that APCOB faced. Whenever CICOL felt like changes needed to be made in their favor, they played

their "access card." APCOB would in turn play its "cutting off funding card." They would then wait and see who gave into the others' demands.

Styles and Philosophy

BOLFOR is criticized by APCOB for not using a participatory approach to become more involved with the communities. APCOB implemented all of its projects through participatory communal planning. BOLFOR did its planning at the inter-communal level with CICOL. BOLFOR representatives saw their role more as technical consultants rather than community development specialists. Most were more than happy to leave that job to APCOB.

Both are effective in their own way. APCOB works with CICOL and the communities to develop projects that they want to build and implement. BOLFOR provides technical skills to groups that want to work specifically with natural forest management and timber certification. While APCOB is effective in working at the grassroots level, BOLFOR is most successful in providing a link between CICOL and the Bolivian agencies for setting forestry policy and the international markets for timber. In terms of the forestry project, their work complimented each other even though there was little effort made to coordinate. Through the efforts of both, the communities of Lomerio have organized to fight for land and resource rights, then turned that struggle into an economic enterprise which has begun exporting timber internationally.

In the arena of conservation and development, grassroots support organizations such as APCOB and technical consultant organizations such as BOLFOR are both necessary. Participatory communal planning and organization establishes the base and

the motivation for a project, but planning is only the first stage. The community will need the technical skills to follow through on the goals and objectives that they set for themselves.

CHAPTER 4

COMMUNITY-BASED FORESTRY AND ECOLOGICAL CERTIFICATION

The story of community-based forestry in Lomerio is similar to that found in other areas of Latin America (Wali and Davis 1992; Stocks and Hartshorn 1993; Macdonald 1995; Fisher 1994). A movement arises to fight for land and autonomy, normally through a new inter-communal or regional political organization (Macdonald 1984). The organization attracts international attention and funds (Conklin and Graham 1995). After land tenure claims are relatively solidified, the organization, with the support of national and international funding agencies, begins to move into other arenas of resource management and market-oriented development. The early political victories turn to disillusionment as the move into market directed ventures does not result in sustainable and/or profitable enterprises managed at the local level (Smith 1994).

Community-based resource management has been promoted as the most viable means to integrate local people at the grass-roots into efforts in conservation and economic development (Western, Wright, & Strum 1994; Tenenbaum 1996). In this study and elsewhere, community-based resource management initiatives often originate outside of local communities, and create new levels of decision-making and sociopolitical arrangements. While these initiatives are often founded on the efforts of grassroots organizations; the projects have a tendency to take on a life of their own and distort the

original goals and interests. They often require local people to reorient their conceptualization of land tenure, create new political institutions, shift economic decision-making from the household to the collective level, and begin a much deeper participation in the market economy¹.

In Lomerio, the movement to form CICOL resulted from real threats to the land and resource base. In the early 1980s, timber companies invaded Chiquitano lands and were proceeding to take out the most valuable timber species. CICOL initiated the process of land titling, and petitioned the government to expel the "pirate" companies from their lands. At the time, the national government was promoting export industries, such as timber. The Chiquitanos were told that their land claim would be strengthened considerably if they could show that they were putting the land to "productive" use, meaning that they needed to start logging. They contacted APCOB for technical assistance, and began some early efforts at logging and forestry management. According to former CICOL directors, the early efforts at forest management, tree inventories and land use mapping, were essentially posturing designed to strengthen the Chiquitanos' legal case against invasive timber companies, and to further their case for land titling. The people of Lomerio had no clearly defined objectives for commercial use and management of the land. They wanted the land for subsistence hunting, fishing, and swidden agriculture. They did know that they did not want the "pirate" companies coming in and stealing their trees.

¹ See Stocks and Hartshorn 1993; Becker 1999; Wells and Brandon 1993; Western,

The scale of the land claim itself was something outside of past experience.

Previously, when referring to land or territory, Chiquitanos referred to their small parcel, the land their family gathered from and cultivated . Their territory was the set of user rights and informally recognized boundaries that separated the lands used by the people of their settlement from those of nearby settlements. Before the land demand people in northern Lomerio would have never considered land in southern Lomerio "their land." There was not a unified conception of Lomerio as a shared territory. Afterwards, all of the people of Lomerio were participating in a broad territorial claim that included the 300,000 hectares used by all of the 28 communities.

While this conceptualization of a common claim to the land of Lomerio has become fixed throughout the 28 communities, ownership and resource access within this broad territory have not been clearly defined, something that will only happen through time as the group handles the myriad conflicts that eventually will arise. Real conflicts between kin groups and settlements have been superficially obscured by the broad land demand. Many have begun to reappear in the negotiations between CICOL and the communities over the organization's authority with regard to the boundaries and rules of forest management.

In the past, community boundaries have been relatively fluid, but the creation of a management plan requires that the community boundaries are clearly delineated. This caused conflict in a number of communities over where the lines would be drawn, and which communities would be paid for logs taken from that area.

The basic economic unit of the Chiquitanos is the household, and this has not changed. This has been the political orientation of Chiquitanos for centuries. The family, organized by sex and age, works together to provide for themselves through hunting, fishing, collecting, farming, and wage labor. The household, while autonomous, is integrated into a web of reciprocal labor and food sharing among the families in their own community and the families of nearby communities. Each family makes its own decisions about what type of productive activities it will pursue. In past years, the community political authorities, or *cabildo*, exercised little control over the production decisions made by the household. The community's authority is limited to ensuring that households take only their share of land and resources, and basic infrastructure (roads, trails, and bridges) are maintained.

CICOL itself is a political organization without origins in the traditional Chiquitano *cabildo*. CICOL represents a change in the scale of political organization. While the Chiquitanos are quite accustomed to political and economic decision-making within their family or their settlement, efforts at inter-communal organization and cooperation have only begun in the past few decades.

In the rest of this chapter I will describe and analyze the main components the resource management and development projects present in Lomerio. It is in these areas that the interactions between CICOL and APCOB and BOLFOR, and CICOL and the people of Lomerio, become most apparent. While many of the problems in the projects are locally specific, many are common in development projects elsewhere, and the Lomerio case brings many to light. I will concentrate on forest management and the

sawmill because these are the largest components of the projects, and the areas where the most problems discussed above occur. I will also use this chapter to analyze the role of timber certification in Lomerio, its role in the economics and politics of the project, as well as the differing perceptions of ecological certification among those working in Lomerio.

Forestry Management

From its founding in 1982, CICOL included as a major objective the improvement of income-producing activities. At time of the founding of the organization, reforestation was a grave concern to the people of Lomerio. Swidden agriculture is only viable in areas of low population density, and the population of Lomerio was growing rapidly. Many worried that the cycle of clearing every fifteen years was being shortened.

In 1984, with the help of APCOB, a nursery was installed with, according to project workers, "indefinite goals to work towards forest recovery." The nursery raised seedlings of timber and fruit trees, and provided these to community members. In 1985 the land situation became even more critical as a group of illegal timber operations, or *piratas*, began taking valuable timber out of Lomerio without a legal concession or a management plan as was required by the Centro de Desarrollo Forestal (CDF). In correspondences written to CIDOB at the time, CICOL portrayed the invasion by the timber companies as a return to the abuses of the patrons whom had been expelled 20 years earlier. With the legal and technical help of APCOB, and under the protection of the Forestry Law, CICOL elaborated a forestry management plan to forward their claim that they had legal right to the land and the timber. The successful completion of the plan

obligated CDF to recognize the legal priority of CICOL's land demand and management plan. The *piratas* were then expelled from Lomerio, and CICOL, along with the people of Lomerio, began to look into the possibility of expanding their own use of the forest resources.

CICOL initially considered forestry management a strategy to strengthen their present efforts to receive official title to the land through a forestry concession. In 1986, CICOL began forestry management activities in the communities. A group of Chiquitano extension agents were trained by APCOB in management techniques: road-building, silvicultural treatments, and inventories. These extension agents began working with the communities, deciding which areas of the communal forests would be set aside for forestry management and which would be defined as communal areas for agriculture.

The next step was the purchase of a sawmill and the equipment needed for timber extraction and processing. The Dutch government provided loans and technical help for the initial purchase and start up costs. The sawmill came under the administration of CICOL, and this has led to a number of economic and social problems that will be discussed in detail later in this chapter.

In 1994, BOLFOR, a sustainable forestry management project financed by USAID, began working with CICOL in Lomerio. Their main goals concerned ecological research and the demonstration of the potential profitability of sustainable forestry management practices. The cornerstone of the BOLFOR strategy was a process of international certification for forestry operations. Certification is based on the theory that a market exists in which people, primarily in North America and Europe will pay an extra

premium for timber produced from sustainable management. BOLFOR worked with CICOL, APCOB, and the communities to get the forestry management operations in Lomerio up to certification standards, and brought in a certification team from Smartwood, a certifying organization working with the Forest Stewardship Council. The team certified the Lomerio operations, and for the past six years the Chiquitanos have been exporting certified timber internationally.

Management Activities

From the community perspective, forestry management can be divided into three areas, each corresponding to a year of activity: pre-logging, logging, and post-logging. According to the management plan for the project, there should be four communities working in each of these areas in any given year for a yearly total of twelve communities working in some aspect of forestry management. This schedule has not been followed strictly. In any given year, the logging operations may finish logging in 2 out of the 4 planned areas, and have to return the next year during the dry season. Some communities have refused to allow CICOL to log their forests because of political conflicts or more commonly because CICOL has not paid for the logs that were extracted during the last cycle. For years, San Antonio would not allow CICOL to log their forests because of disagreements between CICOL and a faction led by the priest and *corregidor* in San Antonio that did not agree that CICOL had the authority to implement the project. Other communities demanded to be paid for logs taken from their forests in past years for which the community had not been compensated.

Each community that participates in the project has its forest divided into 4 blocks and one of these blocks is logged, in theory, every four years. This means that each block is logged once every sixteen years. After sixteen years, each block is re-cut. With the activities of pre-logging and post-logging taking place in the year preceding and following the logging year, the community is involved in forestry management three out of every four years. This means that the community is receiving income in the form of wages and payments for logs during those years.

In the pre-logging phase roads are cut to allow the entrance of the tractors and trucks that take the logs out. A commercial census is conducted, trees are marked for extraction, and silvicultural treatments are applied to the area to be logged². In the post-logging phase silvicultural treatments are also applied, and a set of diagnostic samples are taken from permanent plots to allow monitoring of how the forest is responding to the extractions.

Logging in Lomerio uses techniques termed Reduced Impact Logging (RIL) (Dickinson et al. 1996; Putz 1994). RIL incorporates techniques that are promoted by international timber certifying organizations. The construction of roads and log rodeos is designed to minimize soil damage and disturbance to the forest. Directed felling is used to minimize damage to the surrounding trees and vegetation. Forest inventories are employed to determine the size and density of the commercial species, and the amount and distribution of trees that should be left alone to provide seeds for regeneration. In

² Silvicultural treatments are any manipulation of the forest to promote the regeneration of commercial species. It includes vine cutting, liberation thinning, enrichment planting, and prescribed burns.

order to speed regeneration vines are cleared and in the logged clearings soil is prepared and seeded. Deborah Kennard is currently conducting research to determine the benefits and feasibility of using controlled burns of logged areas to speed regeneration of some of the commercially valuable timber species (Kennard 2000).

Community Benefits

The benefits to the community, as defined by APCOB and BOLFOR, are the salaries paid to the men hired to work in the required activities, and in the price paid for each log that is taken out to be processed in the sawmill (Table 3). The laborers receive 25 Bs. per day (about \$5 US). The sawmill pays between 15 and 40 Bs per trunk depending on size and species. It is common for the sawmill to pay the communities in milled timber rather than cash. The prices for both, the trunks and the labor, was determined in meetings and signed agreements between CICOL and the participating communities.

There is a discrepancy between what CICOL and the NGOs believe are the benefits of the project. CICOL argues that the benefits of the project should come in the form of improvements in health, education, and agricultural production in the communities. Communities agreed with CICOL, but there has been little effort to change to a different system of compensation to communities who are working in the project.

The total area of Lomerio is 289,511 hectares and of this 60,799 hectares are under forest management. 20 of the 28 communities in Lomerio participate in the project with the remaining 8 communities possessing insufficient forest to be included in the plan. San Lorenzo was one of the eight that did not participate in the project, but a large

Table 3. Estimate of financial benefits paid to communities in the forest management project in 400 hectares per community. Monetary values expressed in Bolivianos (US \$1 = 5.2 Bs.)

Operation	# of day wages	Unit Cost	Benefit per commun.	Total Benefit 4 Comm.	Communities
-----------	----------------	-----------	---------------------	-----------------------	-------------

PRE-LOGGING

Boundary delineation	130	25	3,250	13,000	La Asunta
Sample collection	30	25	750	3,000	
Commercial census	250	25	6,250	25,000	Fatima
Marking for directed felling	125	25	3,125	12,500	Las Trancas
Installation of Permanent Plots	50	25	1,250	5,000	San Simon
Follow-up	20	25	500	2,000	
SUBTOTAL	605		15,125	60,500	

LOGGING

Road design	20	25	500	2,000	Las Trancas
Road construction	72	25	1,800	7,200	Todos Santos
Sec. Road constr.	216	25	5,400	21,600	San Simon
Constr. log rodeo	20	25	500	2,000	Puquio
Raw material			26,250	105,000	
SUBTOTAL	328		34,450	137,800	

POST-LOGGING

Silvicultural treatment	500	25	12,500	50,000	Palmira Bella Flor
					Surusubi Las Trancas
SUBTOTAL	500		12,500	50,000	
GENERAL TOTAL	1433		62,075	248,300	

Source - CICOL archives

number of men from the community worked as permanent employees of the project: truck drivers, sawmill workers, and equipment operators. CICOL frequently argued that the forestry project should be a more comprehensive land use project, focusing on agriculture as well, because that is what the communities, all 28 of them, are interested in starting. They felt that helping the communities improve agricultural production would improve participation and effort in logging.

The boundaries of each of the 28 communities of Lomerio are well marked, and have been mapped extensively by different organizations in support of the Lomerio land demand and the forest management project. One study conducted by APCOB (Apoyo para el Campesino Indígena del Oriente Boliviano) and CICOL, the Chiquitano political organization, found that communal territory totaled 94,548 hectares and the number of households totaled 842, meaning that there are 112 hectares for each family (Table 4). Communal territories do not cover the entire expanse of Lomerio, which would expand the available land to 289,000 hectares if the title that is being demanded is granted.

As a community forestry project, it is designed to distribute profits and benefits to the member communities through the commercial sales of timber from the sawmill and the redistribution of profits. In the original plan, the daily wages paid to the community forest workers were to be reduced by a fifth yearly as the sawmill became more efficient and actually began to realize profits. In the original management plan written by CICOL and APCOB, the wages were a subsidy to stimulate interest and motivation for community participation. The wages were meant to be a temporary benefit of the project that would be eliminated as the communities began to feel that they were the "owners" of

Table 4. Land holdings and land use for the communities of Lomerio, 1995 (Land area values are in hectares)

Community	Families	Population	Agriculture	Fallow	Forest	Pampa	Cultivated Pasture	Total Area	Hectar.\ Family
Santa Anita	10	66	15	30	1400	950	25	2884	288
Cerrito	26	125	20	100	1200	2500	50	4193	161
Las Trancas (*)	18	85	40	40	4200	600	200	5555	179
Puesto Nuevo (*)	13	91							
Santo Rosario	31	186	50	70	1100	550		1822	59
San Simon	30	120	25	74	1200	500	25	1867	62
Fatima (**)	57	297	105	240	2800	1700	11	13021	117
Florida (**)	20	100							
Todos Santos (**)	34	144							
Montento (***)	51	306	140	70	6500	6800	120	8321	121
Surusubi (***)	18	129							
San Lorenzo	46	300	360	50	660	2100	10	3251	71
El Puquio	54	333	50	50	2375	1700		4098	76
Coloradillo (+)	27	146	49	45	2050	700	100	3685	90
San Pablo (+)	14	82							
San Antonio	152	1039	265	156	9500	2200	50	12472	82
San Martin	14	88	20	30	2413	400	60	3143	225
La Asunta (++)	22	154	80	40	5850	3500	110	9509	194
Cornocal (++)	27	137							
Palmira	55	326	120	150	2300	1600	110	4452	81
San Jose Obrero	40	318	40	50	2400	700		3649	91
Bella Flor	10	82	25	20	2000	40		2211	221
Salinas	50	325	100	50	500	3800	100	4946	99
Los Rincones	10	53	16	10	400	8		469	47
San Ignacio	13	70	35	35	4800			5000	385
Total	842	5102	1555	1310	53648	30348	971	94548	112

(*) *Mancomunidad* -These communities have rights to ownership and use of the same land(**) These communities form a *mancomunidad*(***) These communities form a *mancomunidad*(+) These communities form a *mancomunidad*(++) These communities form a *mancomunidad*

Source: APCOB-CICOL 1995;

the sawmill and shared in its profits. This has not yet occurred. The sawmill has had problems covering costs and paying communities for the logs extracted from their forests. In the eyes of the community members the wages have become the benefit of the project. Now, both CICOL and APCOB realize that they should have spent more time explaining the project in the communities, investing the communities with a sense of ownership.

One community protested a proposed reduction in the daily wages from 25 Bs./day to 20 Bs./day and threatened to pull out of the forest management project entirely. The situation created a crisis among the project workers as well as among the CICOL directorship, as differing opinions regarding the Chiquitano's participation in the project came to the surface. In a meeting to discuss the problem a number of Chiquitano forestry technicians, or *promotores*, argued that the community should do the work without being paid any wages. They argued that if all of the communities pitched in to make the project work Lomerio as a whole could receive the benefits. In the meeting, the community members who were protesting the wage reduction then asked the *promotores* to reduce their salaries by a fifth. This ended the discussion, everyone agreed to keep salaries at 25 Bs./day. The workers in the communities saw the project as just another source of wage labor. They were no more willing to take a pay cut from the project, than they would accept a pay cut from a rancher whom had employed them or in any other form of wage labor. The crisis caused a great deal of public and private criticism of the project. Later, one of the *promotores* told me:

If Florida [community protesting wage reduction] wants to sell wood, then they have to manage their forests. They are not working for APCOB. They are not working for CICOL. They are not working for the *promotores*. They are working for themselves. It is like if I was building

a corral and I asked 10 men to come and work. Those men would expect to be paid, right? I would have the obligation to pay. But, I would not expect anyone to pay me for working on my own corral. It is their forest. We are not obligated to pay.

While most of the full-time project workers, both Chiquitano and non-Chiquitano, realize that it would not be feasible or desirable to get rid of the daily wage payments at this point, they do see that as a goal. In the original plan, profits from the sawmill would be distributed to the communities, and this would be sufficient compensation to justify getting rid of wages. This hasn't happened because the sawmill has failed to show profit. The community members also do not see the wage reduction plan as a desirable goal. Few have faith that the project will ever attain the level of self-sufficient profitability that would allow the dissolution of subsidies.

Forestry technicians for APCOB, who had participated in the discussions with the community workers who were protesting the wage reduction plan saw the crisis as a red flag that they had spent insufficient time explaining the overall plan to the communities. They felt that they had misjudged the Chiquitanos' understanding or faith in the long-term benefits of the project.

The Sawmill

The sawmill is the centerpiece of the Lomerio forest management project, and as such, it is the locus of many of the major problems. According to the overall project plan, the sawmill should be the productive component of the project that would allow the entire project to move from subsidized and externally dependent to self-sustaining and financially independent. NGO workers and some Chiquitanos hope that the profits from

the sawmill will eventually replace grants and loans from international funding agencies, and help strengthen education and health services, as well as basic infrastructure in Lomerio. At present, there are few that are optimistic that this will happen in the near future.

Since the sawmill first began operating in 1988 there have been problems in maintaining a trained and motivated labor force, filling orders for milled timber, accumulating debts, and basic administration and accounting. One of the largest problems has been a consistent delinquency in paying the communities for logs taken from their forests. The sawmill is deeply in debt, and at times has to pay outside creditors in place of paying the communities. This has decreased the confidence of the communities in the sawmill, and lessened the motivation for community participation in the management program. This in turn reduced the potential pool of workers who are ready to dedicate themselves to working in and making the sawmill productive.

Declining production, accusations of corruption, and mounting debts led CICOL to take dramatic efforts to restructure the operation. For the first years after the sawmill opened, CICOL policy dictated that Chiquitanos fill all administrative positions, and APCOB and BOLFOR staff function as technical consultants. The Chiquitano administrators were being trained on-the-job, and none of the early administrators possessed the skills necessary for managing an operation the size of the sawmill. Many of the APCOB and BOLFOR workers took de facto control over some aspects of the operation. This dual system of official and unofficial administrators was a complete failure according to Chiquitanos and the development organizations alike. The main

problem was ambiguity over responsibility and decision-making. Whenever a problem became apparent, both sides blamed each other. APCOB and BOLFOR, who were really running the sawmill, refused to accept responsibility for mistakes, and the Chiquitanos claimed that they had no control over the situation. In 1996, CICOL, along with APCOB and BOLFOR, decided to change the administrative organization and clearly delineate responsibilities.

The "Transfer Problem"

CICOL, APCOB, BOLFOR, and the workers of the sawmill met together in 1996 and created an administrative counsel with representatives from each group. The counsel met several times a year. They reviewed the production and accounting reports, and selected the persons who would fill important positions. An outside administrator and an outside accountant were brought in to manage the sawmill and begin a more orderly system of record-keeping. APCOB and BOLFOR staff were placed in charge of overseeing three of the primary areas: equipment maintenance, production, and commercial sales. These *responsables* were to train Chiquitano technicians who would eventually take their place when they had acquired the necessary skills. The stated goal was to transfer skills and knowledge to the Chiquitanos so that the administrators from APCOB and BOLFOR could eventually step aside. Chiquitanos made up all of the labor positions: drivers, mechanics, saw operators, and general laborers, and were in charge of the logging, or *aprovechamiento* section of the operation.

So far, the process of transferring skills to Chiquitano administrators has not been successful. There have been innumerable workshops conducted over the years, but it has

not resulted in increases in Chiquitano management responsibilities. The blame really rests on both sides. The Chiquitanos resist being placed in positions of responsibilities, and many of the development workers said privately that it was just easier for them to make the management decisions rather than train the Chiquitanos to do it. Also, once the Chiquitanos do take over management of the project, many the outside workers will be looking for another job.

Sundberg (1998:92) refers to this type of situation as the "culture of simulation." The outside organizations work to accomplish what they have in the management plan, "simulating" that they are helping the locals. The locals mainly do what they are told, specifically all tasks involving manual labor, and thereby development is "simulated," while actually nothing has changed. In the case of Lomerio, both the outside organizations and the Chiquitanos have willingly fallen into this arrangement. APCOB and BOLFOR have a project in Lomerio, and the Chiquitanos have another source of wage labor.

Ideally, a number of years should have been spent training the Chiquitanos before the sawmill was purchased. Now, the immediacy of unpaid loans, funding reviews, and timber orders makes it difficult to return to the beginning in the training process. The sawmill needs income and APCOB and BOLFOR need to show results in order to continue receiving funding (BOLFOR as a government project is less pressured by funding reviews than APCOB).

Production Problems

Table 5 shows that the sawmill has been dependent on outside loans and donations to cover financial costs. The sawmill has failed to cover financial costs since it began production in 1988. Everyone agreed that production had become more efficient by late 1997 and early 1998, but this was seen as primarily a result of the organization and work schedule put in place by APCOB and BOLFOR administrators. Table 6 compares the production goals for 1997 with the actual results. Obviously, the sawmill is far from being a profitable and productive business.

I found that that there was a great difference between the discussion of these numbers among Chiquitanos and non-Chiquitanos, as well as between public meetings and in private conversations. In a meeting of the administrative counsel, the head of production (non-Chiquitano) listed a number of reasons for the lack of production, including: equipment problems, consistency in supply of raw materials, lack of training in new milling standards, and cash flow. His suggested solutions were to buy more and better equipment, improve infrastructure for log delivery, and to improve storage facilities. In private, however, the same person said that the last line of table 6 is the most telling. He said that Chiquitano workers in the sawmill would not show up to work. Out of 120 possible work days, the sawmill was open only for 71. Also, on those 71 days that the sawmill was operating, it was rarely fully staffed. He believed that the sawmill could cover financial costs if it was fully staffed at least 3/4 of the scheduled work days. The sawmill workers are paid a salary, and the salary is not dependent on how many days they show up for work.

Table 5. Income, costs, and loans/donations for the Lomerio sawmill in US dollars.³

	1994	1996	1997
Income-Timber Sales	\$74,502	\$19,640	\$54,768
Costs	\$98,254	\$53,222	\$68,543
Balance	-\$23,752	-\$33,582	-\$13,775
Loans	0	\$31,305	\$13,696
Donations	\$5,463	0	\$68,902
Net Balance	-\$18,289	-\$2,277	\$68,823

Source – Balance general del aserradero "La Esperanza" 1994, 1996, and 1997 - CICOL archives

Table 6. Sawmill production goals vs. production results for 1997.

Production Goal - 1997	Production Result - 1997	% Complete
Produce 280,129 board feet of timber	83,128 board feet	30%
Average 1,751 board feet per day	1,137 board feet per day	65%
Process 600 trunks	230 trunks	38%
Work 120 days (May-Oct)	71 days	59%

Source – Personal Communication - Eduardo Valencia (BOLFOR)

³ I was not able to find records for 1995, nor for the period before 1994.

In a series of informal strikes in the early years of the sawmill, the workers had obtained the agreement that they would be paid monthly salaries, not hourly wages. They are paid between 400 and 730 Bolivianos⁴ monthly depending on skill level and experience. The sawmill is only open for 6-8 months per year, depending on the length of the dry season, so the workers had to continue farming, raising cattle, etc. to support themselves year-round. They argued that they occasionally had to take off days during sawmill operations to tend to required tasks in the agricultural cycle. Days missed from working in the sawmill were not deducted from their pay.

The result, according to the administrators, is that taking time off is the rule rather than the exception. They complained that the workers would take off a week, as a group, to attend a nearby community fiesta or soccer tournament. Often the workers would not come to work, but would show up for the lunches that are provided daily for the sawmill workers. Any attempts to install a more disciplined work schedule were met with rigid resistance, and since it was difficult to find labor in the first place, the administrators had little choice but to give into the demands.

The Chiquitano agricultural cycle is punctuated by periods of intensive activity and periods of inactivity. One administrator has discussed changing the labor organization of the sawmill to reflect this pattern. He proposed creating two shifts of workers that worked for alternating two week periods. The workers would receive the same monthly salary, but would only be on duty for two weeks out of the month. The other two weeks could be spent taking care of other obligations. He proposed creating

⁴ \$1 US = 5.2 Bs.

barracks at the mill for housing the workers since at present most commute daily to and from nearby communities. In this way, the work day could be lengthened to 10 - 12 hours daily, an increase in production that he said would be necessary to offset the doubling of salaries established with two separate shifts.

Once while working in San Lorenzo with a group of men to clear a field, we discussed the problems in the sawmill. I had been under the ethnocentric impression that working for the sawmill would increase one's standing in the community. I noticed that it was mainly young men who worked there, most of them recently married. I thought that having a regular, relatively high source of cash income would be a desirable goal, demonstrating ambition and competence. The men I talked to, all of whom had never worked for the sawmill, had a different impression. They said that the sawmill workers "had one foot in the cemetery." They asked what would happen if they were injured, or if the sawmill closed. How would the men and their families eat? They said that a Chiquitano man was judged by how well he farmed. Without a *chaco*, they said, they are not even Chiquitano. I asked many of the sawmill workers about this, and they agreed. Some said that they were ashamed that they did not have a *chaco*, and that they had to buy their food.

Labor organization at the sawmill has to be restructured. Splitting the labor force into 2 shifts (two weeks on and two weeks off), each working more intensively, could be the solution. It would allow the sawmill workers to earn wages while maintaining their other pursuits. Several employees complained that working in the sawmill prevented them from farming, and they felt that this reduced their standing in the community.

Working for wage labor and working the fields are two very different economic pursuits with differing time schedules, work intensity, and prestige in the community. The sawmill, as a Chiquitano owned enterprise should look for labor organization methods that promote efficient production without requiring employees to withdraw from the traditional activities of their communities.

Indigenous Management and the Market Economy

Along with difficulties in labor organization, the sawmill has been plagued by the mismanagement of funds. Along with the equipment bought by a Dutch NGO, the sawmill was provided with around US \$300,000 in start-up capital. The Chiquitano administrators gave a great deal of this away in the form of loans to communities and informal loans to individuals and sawmill employees. These loans were used to help communities with building schools and to pay teachers, and as small enterprise loans for groups of individuals (primarily for pasture construction). Table 7 shows the difference in the amount of loans distributed in 1996 in comparison to 1997 when outside administrators took control. One of the primary goals of the new administrators is to recover these loans, and change the perception of the sawmill as an unlimited source of cheap loans or "gifts" to the people of Lomerio.

Smith (1995) has discussed the relationship between the indigenous moral order and the marketplace in the context of the market enterprises that are proliferating in indigenous communities across the South American lowlands. The indigenous moral economy is dominated by rules of reciprocity and rewards for generosity; the market

Table 7. Loans made by sawmill in 1996 and 1997 in US dollars.

Loan Recipients	1996	1997
Communities	\$8,572	\$5282
Individuals	\$17,650	\$1026
Sawmill employees	\$6,050	\$20
Total	\$32,272	\$6,328

Source -*Balance general del aserradero 1997* -CICOL archives

economy encourages selfish accumulation. The indigenous economy is designed to affirm and reproduce bonds of social solidarity, while individual self-interest is the motivating force behind the market economy (Smith 1995:11).

In the case of Lomerio, the capital for the sawmill is based on a gift, or a donation. Is this money subject to the demands of reciprocity and exchange? If the people of Lomerio are the owners, do they have claims to this money that the administrator must honor? Table 5 shows that without donations the sawmill would be heavily in debt. In meetings of the administrative counsel, Chiquitano leaders argued forcefully to include the donations as income in evaluating the performance of the sawmill, while the APCOB and BOLFOR administrators evaluated the sawmill purely in terms of production vs. costs. The goal of the outside administrators is long-term self-sustainability, and the goal of the Chiquitano leaders is long-term funding sustainability.

Chiquitanos commonly argued whether the sawmill was a "project," meaning a means of securing donations and funds from outside agencies, or a business subject to the

rules governing a market economy. Most saw it as a "project," and even said that it was a great lure for securing funds. Many of the outside administrators saw it as a business and tried to make it operate like one. In meetings, they frequently admonished the Chiquitanos for failing to see it in that light.

This problem illustrates the differences in values between the Chiquitano economy and the market economy. It also illustrates the differences in priorities for the project between the Chiquitanos and the outside organizations. The Chiquitano administrator who distributes the project funds to family and friends is rewarded with status and prestige for his generosity, and his actions make perfect sense in the indigenous economy based on reciprocity. However, this type of economic behavior quickly leads to bankruptcy in the market economy where managers must invest capital carefully, and accumulate cash rather than distribute it freely.

The non-Chiquitano administrator sees the project funds strictly as capital to invest in the forest management and sawmill operations. One of the most common complaints expressed by Chiquitanos is that the project funds are not used to improve health and education quality in Lomerio, and improve agricultural and cattle production. Most people in Lomerio were not interested in becoming loggers or workers at the sawmill. They were farmers and they wanted the project to reflect their interests. The Chiquitano administrator who distributed project funds to these people was being an effective manager in the eyes of the communities of Lomerio. To many of the non-Chiquitanos and funding agencies this type of behavior was mismanagement at best and corruption at worst.

Outside of the sawmill and CICOL offices, people living in Chiquitano communities were upset when the flow of loans and free milled timber was slowed by the outside administrators. They complained that the sawmill was no longer "for" the people of Lomerio.

Another problem is that the money coming into the sawmill from outside agencies does not easily fit into the values and norms of reciprocal exchange in Chiquitano society. The money comes in the form of a gift, and it is not expected to be repaid. There is little face-to-face contact between the funding institution and the Chiquitano people. This means that this money is outside of the rules of conduct in the reciprocal economy. Removing the norms that normally govern reciprocal gift exchanges can lead to corruption and gross mismanagement on the part of the indigenous manager (Smith 1995:23).

Timber Certification

In 1995 the forest management operations of Lomerio received an ecological certification by a Smartwood (program of the Rainforest Alliance) certifying team (Smartwood 1995). This allowed the project to begin marketing its milled timber as a "green" product. Previously, all timber from Lomerio had been sold either in Santa Cruz or to purchasers in other Bolivian cities such as Cochabamba or Sucre. Immediately, they began receiving inquiries from the US and Europe about their certified timber. The certification stamp allowed Lomerio to raise the prices of their export quality products to match market demand by "green" consumers worldwide.

Certification, however, has not resulted in a quick and easy windfall for the project. Quality standards for international export are much higher than that required for timber sales locally or regionally. The sawmill has had tremendous difficulty mastering the cutting techniques that would allow them to fill orders with timber of export quality. Waste and inefficiency in the milling process has undercut profitability. Also, the most common species in Lomerio, while familiar to consumers in Bolivia, are not as well known in Europe or the US, as other popular tropical species, such as mahogany and Spanish cedar. At first, international demand was not great, and the commercial sales staff had to spend most of their time educating potential purchasers about their timber species.

Ecological certification has gained a strong following as one of the greatest hopes for slowing environmental degradation in tropical areas, and for bringing a needed spark to community forestry (Viana et al. 1996; Kiker and Putz 1997). The experience in Lomerio certainly demonstrates the potential of certification, but it also clearly illustrates its limitations and problems.

In this section I will first give a brief discussion of the philosophy, standards and procedures of certification. I will then position my analysis of the certification experience in Lomerio within the present discussion of certification in terms of cost vs. benefits, feasibility, and community acceptance of certification standards and procedures.

Philosophy

Certification is fundamentally an attempt to differentiate timber products in the market (Kiker and Putz 1997). The objective is to link environmentally concerned

consumers with products that are produced in an environmentally and socially responsible manner. It is presumed that these consumers will be willing to pay a higher price to support these "sustainable" operations. The goals of certification are to influence consumer behavior, promote sustainable forest management, and create economic and social benefits for local people by creating economic incentives for certain types of forest use and management (Viana et al. 1996).

Procedure

The certification process involves an assessment by an independent certification body. The certifiers visit a management area and determine whether an operation meets certain standards and criteria. The evaluation examines all activities surrounding the timber from forest to point of sale (Elliott and Donovan 1996).

Assessments are typically conducted by interdisciplinary teams of foresters, ecologists, social scientists, and specialists in areas such as sawmill management (Heaton and Donovan 1996:62-63). Assessments can last up to three weeks and include field site visits to a variety of sites representing the stages of logging and regeneration, meetings with management, and meetings with affected parties, such as government officials, local communities, employees, and scientists. While there are general standards of certification the team must take into consideration the particularities of local conditions, so an important phase of the assessment involves a discussion of the relation between general standards and the specifics and limitations of local conditions (Heaton and Donovan 1996:62).

The second major phase of certification requires the producer to prove that there is an unbroken trail of accountability for products between the forest and the places where wood or wood products are sold. The producer is required to demonstrate that all consumers can be completely confident that the timber they buy does originate from a certified, well-managed forest (Groves et al. 1996:68).

Standards

The Forest Stewardship Council has been working to establish a standard of recognized and respected guidelines of forest management for all certifiers. The following principles apply to all forests tropical, temperate, and boreal forests (Cabarle et al. 1995:15). The Council and its accredited certifying organizations do not insist on perfection, but major problems in any of the principles will disqualify operations from certification (The following is taken from Cabarle et al. 1995). These are the standards that were used to evaluate the Lomerio project.

- 1) Forest management should respect all laws of the country in which they are located, as well as all treaties or international agreements to which the country is a signatory.
- 2) Tenure and use rights to the land and resources should be clearly defined and legally established.
- 3) The rights of indigenous people to own and use their lands and resources should be recognized and respected.
- 4) Forest operations should maintain or enhance the long-term social and economic well-being of forest workers and local communities.
- 5) Forest operations should encourage the efficient use of the forest's products to ensure

economic viability and a range of environmental and social benefits.

6) Management should maintain the ecological functions and integrity of the forest.

7) A management plan -appropriate to the scale and intensity of the operations- should be written, implemented, and up-dated.

8) Monitoring should be conducted to assess condition of the forest, yields, chain of custody, and environmental and social effects.

9) Site of major environmental, social, or cultural significance should be conserved.

Lingering Questions

The first question is whether people are willing to pay higher prices for green products. One study found that 34% of US consumers would be willing to pay 6-10% more for certified timber products (Varangis et al. 1995). However, in a survey of certified timber merchants, Merry and Carter (1997) found that prices are not significantly higher for certified products. They also discovered that merchants entering the certified timber market are primarily purchasing domestic, rather than international products.

A second question regards the economic costs of certification. There are three major costs of certifying forest management. The first is the incremental costs of improving management practices to meet certification standards. The second is that compliance often leads to reduced yields and higher opportunity costs in relation to alternative harvesting strategies (Cabarle et al. 1995:13). The third cost is the cost of the assessment and subsequent monitoring.

Reid and Rice (1997) have proposed that no financial incentives exist for any investment in natural forest management, or controlled harvesting. Due to slow growth

rates for commercial tropical tree species, stagnating prices for tropical timber, and high interest rates in developing countries, unsustainable logging is much more profitable than sustainable options (Reid and Rice 1997:384). They argue that any large scale efforts to introduce controlled harvesting will require government oversight and enforcement.

Despite these discouraging findings, researchers have shown that reduced timber output can be partially compensated by lower operating costs and increased recovery from better planning (Putz 1994; Barreto et al. 1998). Planning can also lead to significantly lower operational costs and a long-term supply base due to reduced detrimental effects (Cabarle et al. 1995).

Even with the biological and economic questions of certification, the toughest challenge for certification proponents is to convince forest users of the positive benefits of certification. In general, the people of Lomerio saw the certification of their forests as a concern of BOLFOR and APCOB. Many Chiquitano employees of the project told me that they thought that certification brought prestige to the outside organizations, but did little to benefit the people of Lomerio. BOLFOR and APCOB spent a great deal of time attempting to demonstrate that certification meant tangible benefits for Lomerio. However, most of those benefits were lost in the cycle of waste and mismanagement that have plagued the sawmill, and so were not realized by the communities of Lomerio. However, as I will show next, timber certification in Lomerio still has the potential to transform local conservation and development efforts, and the experience as a whole offers insightful lessons for other projects experimenting with ecological certification.

Certification in Lomerio

a. Evaluations. The Smartwood evaluation team analyzed the Lomerio forestry project based on the 9 point standards listed above. Their performance in each of the major categories was scored on a scale of 1 - 5, with 3 being a passing score. Lomerio scored an average of 3.2, barely above the minimum certification score. The project received the highest scores in land tenure, labor relations, and efficient use of forest products. Significant weaknesses of the project were identified in community relations and economic feasibility. Smartwood certified the Lomerio operations in 1995, but gave a number of conditions that would have to be met to ensure re-certification in 1998.

The technical forest management aspects of the project received relatively high scores, but Smartwood required the project to increase the amount of protected areas within the management area, reduce reliance on timber from unmanaged areas, and create a clearer log and timber registration system to ensure an accountable chain of custody. Ironically for a so-called "community forestry project," the majority of the conditions had to do with community relations. Smartwood listed a series of conditions involving deepening community participation in the decision-making of the project, increasing Chiquiano participation in the administration of the sawmill and the management activities, increased communication between the institutions and between the communities and the institutions, and the creation of a monitoring system that tracked social and economic effects of the forest management activities.

When the project was re-evaluated in 1998 many of the same problems in community relations and economic returns were listed. This time Lomerio was given one

year to make corrections or face the loss of certification. This last evaluation occurred at the end of my field work period and many of the project personnel were not confident that the project could or should meet Smartwood's conditions before the next evaluation.

b. Certification costs and benefits. Discussing the question of certification costs and benefits immediately raises the issue of financial boundaries for the individual and economic boundaries for the community. In looking at an individual's decision to spend time in the forestry project, improvement to the family's well-being must be determined. Would the family be better served by staying and working in the *chaco*, or would the family be better served by the wages from working in the forestry project? At certain times of the year when there are few agricultural activities that need to be done, there is little opportunity cost for working for wages on the project. However, at other times of the year, for example, during forest clearing times, opportunity costs for working on the project are high. It is at these times when we would expect the least amount of participation in the forestry project.

Both APCOB and BOLFOR discuss the wages as a benefit of the project, but they are talking about financial benefits to the individual. If the discussion is expanded to an economic analysis of costs and benefits to Lomerio, then the opportunity costs of labor on the project would have to be incorporated. In many cases, benefits and costs of certification, or of the forestry project in general, are discussed in purely monetary terms. This ignores costs of labor in the logging operations, or in the sawmill, which is measured in the benefits that can be gained in working in other productive activities in Lomerio.

This may explain the strong desire to shift project money and resources from forest management to cattle stock improvement. Chiquitanos view cattle as a source of income with low opportunity costs, much less than the forestry project. In fact, the existence of forest management implies opportunity costs, since many would like to convert forests to pasture. Cattle production is viewed at present as a much more lucrative source of individual financial and economic benefits than the forestry project.

At first glance the financial benefits of timber certification appear obvious. Table 8 shows that the income from sales of export quality certified timber kept the sawmill from sinking even deeper into debt. Average Prices for timber sold regionally ranged between US \$.38/foot and US \$.92/foot, and prices for export timber averaged \$1.22/foot.

The local view of the sawmill as a source of cheap timber and loans was reinforced by the actions of the sawmill managers. Most sales of timber in Lomerio, Santa Cruz, and other Bolivian cities did not even cover production costs. The sales of timber in Lomerio were primarily to the Church, the communities, APCOB, and for the construction of the CICOL office. All of the sales were at prices far below cost, and resulted in a deficit of US\$22,835. These sales represented 42% of all sales. Exports were only 21% of all sales, but they brought in US\$12,025 in income. Sales in Santa Cruz, Cochabamba, and Sucre are mixed, but taken as a whole they are at least covering costs. These sales represented 36% of all sales, and brought in a positive income of US\$268.

These numbers seem to suggest that sales of certified timber are keeping the operation from completely drowning in faulty business practices and gross

mismanagement. There is another side to the story, however. Curupau (Anadenanthera colubrina) is the most common timber species found in the forests of Lomerio. Because of its hardness, it is also one of the most difficult to cut and store as timber. It costs US\$.97/foot to mill curupau in Lomerio, much higher than other species. When sold locally or regionally, its price was never over US\$.38/foot, but sold as certified timber internationally, its price jumps to US\$1.20/foot. 17,646 board feet of curupau were sold in 1997, representing 63% of all timber exports.

Table 8. Summary of 1997 timber sales by market and price

Market	Quantity (in board feet)	%	Price /Unit (US\$)	Cost /Unit (US\$)	Diff. Cost vs. price	Total Gain or Loss
Lomerio	54,696	42	.38	.79	-.41	-22,835
Santa Cruz	31,316	24	.76	.79	-.03	-999
Cochabamba	12,411	9.5	.92	.78	+.14	+1738
Sucre	3,833	3	.63	.75	-.12	-471
Int'l export	28,296	21.5	1.22	.79	+.43	+12,025
TOTAL	130,552	100				-10,542

Source: *Resumen general de ventas de madera por clientes y especies 1997* - CICOL archives

The sawmill could have sold more curupau, and in fact another 42,000 board feet of curupau were milled and in storage in Lomerio. The stored 42,000 board feet was classified as quality 2 and 3, unfit for export. This timber, representing a little less than a

third of all production for the sawmill, was practically worthless since the selling price was only a third of the costs of milling.

The sawmill employees did not find out that all of the work was for naught until it was completed, and this created a great deal of resentment. Most blamed certification for the waste. At a meeting of the administrative counsel for the sawmill, the employee representative, an influential, young Chiquitano leader argued that the sawmill should forget about exporting timber and concentrate on becoming more effective in sales to the regional market. Most of the Chiquitano sawmill employees supported this view. They said that the process of creating export quality timber was too wasteful and an inefficient use of resources, and they did not feel that it was worth the effort. In other words, they thought the costs far outweighed the benefits.

The BOLFOR sawmill managers argued that the sawmill should expand the efforts to export quality, certified timber. They were evaluating certified timber in terms of financial price vs. cost, and obviously saw certification as positive. The sawmill employees evaluated certification in terms of effort, time, and waste vs. returns, and they viewed certification as negative. The views of the sawmill employees tend to reflect that of the communities. So, in general, the difference in manager and employee views of certification, really can be translated as differences in Chiquitano and non-Chiquitano views of certification.

c. Local perceptions of certification. The following is taken from a transcript of an interview about certification with one of the Chiquitano *promotores*. He has worked

on the project since the beginning, and was expected to take the lead in directing the project in the years to come.

What happened? How did we receive certification? Because there had been some work done to promote forest management? A little bit of experience in managing the forest? Yes, I agree that the technical aspects of forest management should be certified. But should it be certified as an integrated project? There are three parts to certification; environmental, social and economic. What has happened to the economic part? It is dead on the ground with the sawmill. What about the social part? The same. But the environmental part? It is excellent. The problem is the other two parts. So, what benefits does the certification bring? I don't know. There is nothing really. It is all artificial. The people do not feel that it is anything but a symbol. BOLFOR and APCOB want the certification, but I think it is more in their interest to have their project certified. Maybe if the people understood more and supported certification, but I don't know. I haven't seen the benefits yet. (my translation)

This feeling is echoed by the directors of CICOL and the people in the communities. To them, certification is pure rhetoric. The same view was echoed throughout Lomerio - "If the project can demonstrate a tangible benefit of certification then we will support it, but until then we see it as only in the interest of outsiders."

In late 1997 CICOL learned that US\$6,000 of the total project budget would be used to pay for the second Smartwood re-evaluation visit, primarily to pay stipends and travel expenses for professionals coming from the United States. They seriously discussed canceling the trip and using the money to further small projects they were working on to improve agriculture and cattle production. The director of APCOB intervened to make sure that this did not occur, but the message was clear. The people of Lomerio do not believe that certification can help their situation, and would prefer to be finished with it.

At present, certification is propped up by BOLFOR and APCOB. One of the certification evaluators told me that the lack of understanding and support of certification at the community level is one of the primary reasons that the project is close to being decertified. The evaluator asked a question that many in Lomerio were beginning ask: How can you certify a community-based forest management project if the people in the communities 1) do not feel that they are owners of the project, and 2) are indifferent at best, as to whether the project is certified or not? The issue of certification raises serious questions regarding the participation of communities in the project, and the question of project ownership in general.

Conclusions

In recent years there has been a policy shift in Bolivia regarding forest resources. There has been a shift from state control to collective forms of land and resource tenure. This is a result of the strength of the indigenous rights movements within the country, and it is also a recognition of the failure of centralized management efforts to manage the resource in an environmentally sound and socially just manner. This decentralization trend is becoming common in many developing countries (Singh and Khare 1993).

Community-based forestry, however, has not emerged as the panacea that was expected. Several of the most well-publicized, technically equipped, and financially supported projects, such as Lomerio, are experiencing serious problems, and their social and biological sustainability are in question (MacDonald 1995).

In Lomerio and elsewhere, all of the elements are in place for community-based forestry to demonstrate its effectiveness. Land tenure is secure, and the proper

institutional arrangements for managing resources are in place. There are substantial economic incentives at the community level for implementing sustainable management programs. And, for the most part, financial risk is being absorbed by funding from international donor agencies. Despite this, there are few cases of successful enterprises.

The initial enthusiasm for forest management among the Chiquitano leadership in the late 1980s has faded considerably. The Chiquitano people are beginning to call for a change in priorities. They want improved health and education services. They want access to improved agricultural techniques, technology, and seed varieties. They want to move into more intensive cattle production. Few Chiquitanos see the forest management project as the means to these ends. BOLFOR and APCOB have failed to demonstrate the potential link between successful and profitable forest management and local economic development.

Chiquitano families keep their economic interests broad. They concentrate on agriculture, but they also compliment agricultural production with a wide variety of income generating activities. Until dependability has been proven, they are conservative in adopting new techniques, technologies, and economic strategies (Alarcon 1994). So far, the forestry management project has not proven its worth as economically viable to the average Lomerio family. They are reluctant to invest large amounts of time, labor, and even hope in its future success. Short-term benefits are needed to maintain interest in the project.

While forestry operations have expanded dramatically in Lomerio since the early 1980s, efforts to improve agriculture production, animal husbandry, institutional capacity,

and education and health services have stagnated, according to community members and CICOL directors alike. The Chiquitano people have expressed a strong interest in diversifying the forest management project to reflect their interest in improving some of these areas. APCOB, and to lesser degree, BOLFOR, should honor this wish and do more to expand the minuscule programs that promote native seed use, crop diversification, agroforestry, and genetic stock improvement of cattle. A serious effort in these programs would establish more trust throughout the communities, and demonstrate a dedicated effort to improve life in Lomerio.

CHAPTER 5

AN INSTITUTIONAL APPROACH TO THE LOMERIO FORESTRY PROJECT

The previous two chapters outline the make-up of the forestry management project in Lomerio, and introduce some of the problems existing within and between the organizations working on the project. I discuss issues of paternalism between the APCOB and CICOL, the lack of a sense of project ownership in the communities, the lack of skill transfer between the outside organizations and the Chiquitanos, and general management and administration problems with the sawmill. This chapter uses an analytical framework developed by Ostrom (1990) and Bromley (1992) to examine institutions involved in resource management. This approach broadens the discussion, and allows for a comparison between Lomerio and other similar development and resource management case studies. I also compare Lomerio to a number of case studies that have been conducted in community forestry in other areas of Latin America. The purpose is to assess how Chiquitano resource management can best be supported by NGOs and government development projects.

Institutional Analysis of Resource Management

Elinor Ostrom's model specifically focuses on institutions that have been developed to manage "common property resources." Common property resources can be thought of as any resource for which there are collective arrangements or rules that limit

access or exclude non-owners and regulate use among co-owners (Richards 1997:96).

Common property can be natural resources such as forests, pasture land, fisheries, and water, but it can also be resources such as radio wavelengths and airspace. Ostrom's work (1987, 1990, 1992) and the literature on common property grew out of a reaction to Hardin's "Tragedy of the Commons" theory.

In 1968, Hardin's "Tragedy of the Commons" was published. The theory immediately sparked a lively dialogue concerning common property resources that has continued up to the present. Hardin made the proposal that human beings are inherently driven by greed, and that they are incapable of managing the commons (i.e. forests, pasture, game, fish, air, water) except through the intervention of the state, or by a comprehensive system of privatization. Anthropology took the theory as a challenge. Particular cases were presented from both western and non-western societies that disproved Hardin's generalizations. Formal and informal local management institutions have been described in fisheries (Acheson 1975; Johannes 1981; McCay 1980; Pinkerton 1992; Zerner 1993), irrigation (Fernandez 1987), pasture land (Netting 1981; Buck 1989), hunting territories (Feit 1973; Hames 1987; Brightman 1987), and even urban water utilities (Ostrom 1990). The outpouring of research into this area produced a wealth of information about traditional resource management schemes: from how the systems were uniquely adapted to specific ecological and social communities (Netting 1981; Acheson 1975; Johannes 1981) to their relation to modernization and the demands of western scientific resource management (Hviding & Baines 1992; Brightman 1987; Zerner 1993).

The Question of the Commons, a collection of papers and articles specifically compiled as a refutation of the tragedy theory, was published in 1987. In the introductory chapter, the editors of the collection, Bonnie McCay and James Acheson, lay bear Hardin's assumptions, and in so doing illustrate the limitations as well as the usefulness of the tragedy theory. They list what they consider to be the four assumptions underlying the model:

[1] common property is always of the open-access variety; [2] that the users are selfish, unrestricted by the social norms of the community, and trying to maximize short-term gains; [3] that the users have perfect information; [4] and that the resource is being used so intensively that over-exploitation and depletion are possible. (p. 7)

McCay and Acheson (1987:7) claim that the commons model possesses an individualistic bias, ignoring the potential for groups to cooperate in the management of commons. They say that many commons models fail to recognize the social aspects of property systems, disregarding historical and institutional variables in the analysis of property systems (McCay & Acheson 1987:8). Further, they reject Hardin's proposal that the only solution to commons dilemmas is the intervention of "external authorities" or the privatization of property rights. This negates the possibility of user-group and local-community management of the resources, and implies falsely that private property

protects resources from misuse, while systems of common property do not (McCay & Acheson: 9).

Based on a broad study of successful and failed common property regimes, Ostrom (1990) developed a conceptual framework for the analysis of common property resource institutions. This approach involves an analysis of the ways that groups make decisions, and the ways that individuals interact when applying rules regarding resource use. There is a firm distinction between: 1) operational level actions, 2) collective choice actions, and 3) constitutional choice actions (Schlager and Ostrom 1992).

Operational actions (harvesting, planting, etc.) are constrained by operational rules that require, forbid, or permit specific actions. For example, logging in a specific forest may be restricted to the residents of the community that own the forest. Operational rules are changed by collective-choice actions. For example, the species or numbers of trees that may be taken is changed. Such actions are taken within a set of collective-choice rules that specify who may participate in changing operational rules. A third level of action is the constitutional level. Collective-choice rules are changed through constitution-choice actions. Either through creating an organization, or by changing the ways that rules are created within an existing organization, people are involved in constitutional-choice actions (Schlager and Ostrom 1992). A community creating a committee to decide on harvest rights would be an example of constitutional-choice action.

Uphoff (1992) defines an institution as a "complex of norms and behaviors that persists over time by serving some socially useful purpose." Using the framework from

above, McGinness and Ostrom (1993) expand on this definition and describe common property resource institutions as ones where "participants design basic operational rules, create organizations to undertake operational management of their common property resources, and modify rules-in-use over time in light of past experience according to their own collective-choice and constitutional rules (1993:23).

Ostrom presents a set of "design principles" that characterize "robust" common property resource institutions. A "design principle" is described as a general element or condition that accounts for the success of institutions in sustaining resources and in persisting through time (McGinness and Ostrom 1992:24). These are found mainly at the collective-choice and constitutional levels of action and rules. These are not specific rules or conditions that apply to every situation, but rather general underlying principles that have been gleaned from a wide variety of field settings. After a brief description of each, I apply the design principles to a critical evaluation of the forestry management project in Lomerio. The eight domains are listed below with a brief summary of each (adapted from Ostrom 1990 and McGinness and Ostrom 1993).

Lomerio and the Design Principles of Resource Institutions

1. Clearly defined boundaries - Individuals, households, or communities that have rights to extract forest resources must be clearly defined as well as the boundaries of the resources themselves. This principle has multiple facets. The first is tenure. The users must legally control their territory, and feel reasonably secure that tenure is not threatened by neighbors or by external authorities. It also means that physical boundaries must be clearly marked and agreed upon. Those who invade another person's territory know they

are doing it, and those who are invaded can readily prove that they have been invaded (McKean and Ostrom 1995). Also, membership in the group of eligible users of an area and a resource must be clear.

For the most part, Lomerio has a solid foundation in this principle. Their land claim has entered the final stages, and is expected to be finalized soon. CICOL has proven that it can defend Lomerio against invasive companies. Furthermore, the national and international media connections of NGOs, such as APCOB, and the experience and skills of CICOL's legal consultants would prevent any backtracking by the part of the government on the land demand, or at the very least, make it politically costly.

Membership of eligible users is not an issue in Lomerio. All community residents are entitled to use the land and resources of the land held by the community. Whenever there is in-migration to a community through marriage, the *alcalde politico*, along with the rest of the community, approves areas for farming use by the new family. There are, however, some disagreements over the boundaries that recently have been delineated and mapped for the land demand and the forestry management plan.

A number of communities have disputed the exact location of the boundaries separating community lands for decades. These disputes had simmered for a long time until it came time to make a precise map of all community holdings. Teams were sent to mark the boundaries, and to record their exact locations using Global Positioning System (GPS) technology. This caused inter-community conflict in a couple of cases, and the maps now show small disputed areas. The government has stated that CICOL and the

people of Lomerio must resolve these conflicts before they will proceed with granting official title to communal territories.

The forestry management project has ignored these areas and concentrated on other forests. No disputes have arisen over ownership of logged areas, or the logs taken from the areas. The community disputes cannot be ignored indefinitely, however, and the project and the people of Lomerio must resolve them soon.

2. Congruence between rules and local conditions-Appropriation rules restricting time, place, technology, and/or quantity of forest resources are related to local conditions and to provision rules regarding labor, materials, and/or money. The distribution of decision-making rights and use rights to co-owners of the commons need not be egalitarian, but must be viewed as fair. There is no dispute among external evaluators, such as the timber certification teams, that the people of Lomerio have done an excellent job in the technical aspects of managing the forest. The management plan is based on good information gathered from tree inventories and censuses. Road-building and harvesting techniques have done minimal damage to the forests. Outside evaluations, including the timber certification team, give high marks in these areas.

The communities do not dispute the amount or types of trees that are harvested from their forests. Nevertheless, the rules of forestry management in Lomerio include much more than simple harvest rates. They also include agreements between CICOL and the communities regarding salaries for community residents who work in harvesting the trees, and in the types of resource uses (i.e. hunting) that are permitted in the logging areas.

Jornales is the term given to daily wages. In the communities, if someone works for another on a wage basis, the pay is 25 Bolivianos/day (about US \$5). When the project first began, CICOL signed contracts with the communities that established the normal *jornal* as the wage level for work in the project. Since then, CICOL and APCOB have tried to reduce the salaries. They have discussed reducing it by 5 Bolivianos per year for five years. CICOL and APCOB feel that the logging project is owned by the people of Lomerio, and that if they contributed their own voluntary labor, the project would become profitable, and could distribute those profits to the communities. CICOL tried to get the communities to sign a new contract that reduced the wages, and this almost caused some communities to place their forests off limits from logging altogether.

Another conflict over rules exists due to a ban on hunting in logging areas, specifically in the forests of the community of Las Trancas. This area was being used as the research site for a study by BOLFOR on the effects of logging on wildlife populations. As a part of the contract signed between CICOL and the community, hunting was banned in this area. Researchers from BOLFOR worked closely with hunters for a number of years, and tried to gain acceptance of the rule. There has been little recognition of the ban, and hunting has continued unabated. No one has really tried to enforce the ban, but many community members in Las Trancas felt that rules were being dictated to them about how they can and cannot use their own forests. Both the conflict over the *jornales* and the hunting ban, lead into the next design principle, one of the most critical for the future success or failure of the project.

3. Collective-Choice Arrangements-Most individuals affected by operational rules

can participate in modifying operational rules. Users must have the right to modify their use rules over time (McKean and Ostrom 1995). This requires, at a minimum, that the users are participating in the process of developing operational rules. This has not been a strong part of the Lomerio project.

I have discussed how the people of Lomerio do have a say in the organization of CICOL, and in the policy directions that the project takes. However, planning for the forestry management project has been conducted primarily between APCOB and BOLFOR technicians, the CICOL directors, and a small group of Chiquitano technicians. There has been an unstated assumption that the people of Lomerio do not need to become knowledgeable of the basic scientific and economic philosophies of tree harvesting and management. The communities are expected to fill their role in the process without detailed knowledge of how it all fits together. This is the root of many of the problems in the project.

I discussed this problem with many community residents and found that it had generated a great deal of resentment, and was the primary reason for the lack of a sense of project ownership in the communities. In a discussion of the project, one *alcalde politico* referred to CICOL and the project as *el negocio*, or the business, and said that it was no different than the "pirate" timber companies that had taken timber out the communities forests in the 1980s.

So, when CICOL comes to the communities wanting them to accept a wage reduction as a cooperative gesture to the project, there is loud protest. The communities

are not part of the decision-making process; they are being used as nothing more than laborers. In fact, many say that they have allowed CICOL to continue taking logs from their forests only because they need the wages. They do not believe that they will ever see profits distributed from the project. For their part, CICOL, APCOB, and BOLFOR have not tried to sufficiently inform the people of Lomerio about the project, and how they could see benefits from things like certification and the sawmill.

Don Juan, the president of CICOL agreed that the primary problem in Lomerio is that the people do not feel that they are the owners of CICOL or the forest management and development project. The project and all of the property associated with it, most importantly the sawmill, are promoted by both CICOL and the outside organizations as belonging to the people of Lomerio. Many community members view these statements cynically. Most do not think that they have any personal stake in the project, and many think that CICOL is working for its own benefit. One informant said that CICOL is the *chaco*, or cultivated field, of the directors. He was implying that the directors are using the organization to make a living, maybe too good of one. This is where CICOL and APCOB have failed. They have only involved the people of Lomerio in their project as laborers. They have not found a way to tap into the collective spirit that results in tremendous cooperative efforts at community improvement within communities. The project exists at a regional scale, and the same bonds of cooperation have not formed between communities. The primary reason, cited by both community residents and CICOL, is that local people are not participating in the project in a meaningful way (in project design and decision-making). They do not perceive tangible benefits. And,

therefore, they do not feel that they are the "owners." The project has yet to find an effective way of scaling up from the cooperation and reciprocity found at the community level to further the goals of forestry management.

In San Lorenzo, Saturdays are designated community work days. The community pitches in to rebuild bridges, clean up roads and paths in town, repair school buildings, and clean up the central plaza. While Chiquitanos will gladly volunteer to work a few days out of the month on community projects, no one would consider working in forestry management without pay. Unlike their work in the communities, most people in Lomerio do not feel that they have a stake in the forest management project. It is the major problem that CICOL has struggled to resolve since the project began in the mid-1980s.

BOLFOR and APCOB began a project of community education at the end of my research time. They planned to train a team of Chiquitanos to go out into the communities and educate them about the project. More efforts along these lines are needed if the Lomerio project is going to make it to self-sustainability.

4. Monitoring and 5. graduated sanctions- Use rules need to be clear and easily enforceable. Monitors, who actively audit forest resource conditions and participant behavior, are accountable to the participants or are the participants. Participants who violate operational rules are likely to be assessed sanctions. The Chiquitanos were never loggers prior to the beginning of the forestry project. There is not a threat that individuals will begin harvesting timber on their own in violation of the rules of the project. Chiquitanos use the forest for hunting, fruit collection, as a source for building materials and firewood, and as sites for new agricultural fields. The forestry operations have been

placed in areas that are far enough from the communities that they are not used for agriculture, and this should continue to be the case for the immediate future. With the exception of hunting, the project does not create any rules regarding forest uses other than logging. Self-monitoring of firewood, building material, and fruit-collecting is non-existent and not needed.

In the case of timber extraction, the monitors are the external timber certification teams. The entire management plan was created with the goal of obtaining certification for the Lomerio project, and is now adjusted according to recommendations of the periodic certification evaluations. The system of sanctions is simple, but important. If the management of the project falls below certification standards, Lomerio loses certification and the income that comes from being able to export certified timber.

At present, there is no need for the communities to monitor for illegal tree harvesting, but they could be involved in monitoring the social and economic aspects of the project. The communities of Lomerio could do periodic evaluations of CICOL and the outside organizations on their managing of the project. This could be done according to the criteria used by the certification teams. This could identify problems and correct them before the project faced evaluations by the outside teams. This requires a few prerequisites.

First, the communities of Lomerio need to understand certification and agree that it is something valuable that they wish to maintain. At present, there is little understanding of certification and its financial benefits, nor the connections between the actions of CICOL and future re-certification. Second, a local organization independent

of CICOL would have to be created to do the evaluation. All of the communities would need input into the composition, structure, and rules of the organization. This organization could help improve the project's approach to the next design principle as well--conflict resolution mechanisms.

6. Conflict-Resolution Mechanisms-Participants and their officials have rapid access to low-cost, local arenas to resolve conflict among participants or between participants and officials. CICOL represents 28 communities and around 5500 people. Disagreements over policy and actions are inevitable and common. Successful common property institutions provide opportunities for these disagreements to be aired and conflicts to be resolved through compromise (McKean and Ostrom 1995). CICOL deals with problems on an *ad hoc* basis. Whenever a problem arises, they bring the parties to the office and attempt to settle the dispute. They spend a large amount of their time solving the same types of problems repeatedly. The largest category of these problems relates to payments for labor in the forestry project and payments to the communities for logs taken from their forests. In many cases, BOLFOR or APCOB workers are responsible for distributing payments (this deepens community alienation from ownership of the project), but ultimate responsibility lies with CICOL, and it is CICOL that hears the complaints from the communities.

Often these conflicts disrupt the project as communities suspend logging in their forests until it is resolved. CICOL deals with each one in a cycle of crises. While they are dealing with one crisis, they neglect action in another community, leading to another

crisis. Lomerio could accept these problems as normal and develop an institutional mechanism for resolving them.

The communities' only real opportunity to influence the composition or policies of CICOL comes in the yearly General Assembly. The same monitoring organization discussed in the section above could be used as a quasi-General Assembly that is activated much more often than once a year. Individuals and communities could take their complaints to the monitoring organization, and these would be taken into account in the regular evaluations of CICOL. This would take some of the responsibility of conflict-resolution off CICOL, and make the organization accountable in cases where they are the objects of the conflict.

7. Recognition of rights to organize- The rights of participants to devise their own institutions are not challenged by external government or non-government authorities. In regard to government authority, this principle was key in the early years of CICOL and the forestry management project. While the organization has never been threatened by repressive action on the part of the government, they did have some difficulty obtaining a concession for the right to harvest the trees on their lands. The government did, however, grant the concession in 1986 after CICOL and APCOB developed a management plan for the forests, and actually began logging.

Recently, autonomy in the relationship between CICOL and both APCOB and BOLFOR has been at issue, and threatens the stability of the project. One of the founding directors of CICOL told me that in the early stages of the organization's development he was worried about the extent of the organizations alliance with outside organizations and

financiers. "We needed the knowledge and the money to get started. How do you fight a company? How do you get title to the land? We wanted to fight, but we didn't know how." The Chiquitanos initially approached national and international development/conservation organizations with a great deal of trepidation. They wanted the money, technical support, and political leverage that came with the alliances, but they did not want to create a dependency that would threaten their autonomy.

Historically, when indigenous peoples have been constrained by relations with outsiders they have actively searched for ways to protect their autonomy, often taking the skills and resources obtained from the outsiders and turning them to their own objectives and realities (Conklin and Graham 1995). In Brazil, the Kayapo, who in the 1980s used alliances with environmental NGOs to block a proposed hydroelectric dam and received legal rights to their territory, have since sold concessions to timber companies to log large tracts of mahogany and other tropical hardwoods within their territory (Turner 1993). In contrast, many Chiquitanos believe that they have fallen into a deeper dependence on outside money and organizations, and have failed to use the skills they have acquired in ways that would assert their autonomy over their own political organization and the different projects going on inside their territory.

Many Lomerio residents feel that Chiquitano autonomy is being undermined by the type of relationship that has developed between the people of Lomerio and both APCOB and BOLFOR. While the public discourse between these groups is one of equality and power-sharing, the reality is that one group is highly dependent on the other,

and often it leads to defensiveness on the part of CICOL, and paternalism on the part of the outside organizations.

Conflicts between CICOL and both BOLFOR and APCOB, are common, and usually occur when CICOL perceives an intrusion into their domain of authority and self-determination, an ambiguously defined field in relation to the decision-making process of the forestry management project. These conflicts have created crises in which the alliance and the future of the project is threatened.

8. Nested Enterprises- Institutions for managing very large systems need to be layered, with considerable authority devolved to small components. Lomerio covers a large area --300,000 hectares, and consists of 28 communities. Many of these communities are not in frequent contact with each other.

Lomerio provides a different case since each community is not harvesting trees independently. CICOL owns the trucks, tractors, and equipment, and is directing the harvesting. As I have stated previously, the communities are not involved in the planning of the operations. They only become involved when their turn at harvesting, or some other aspect of the management plan comes around, and CICOL arrives to tell them what will happen. The communities should be involved in the process long before that.

Community Forestry in Latin America

Many of the shortcomings of community forestry in Lomerio are not isolated, locally-specific problems. A number of community-based projects in Latin America have run into similar institutional problems in managing common property resources. This section will highlight a number of the similarities between the institutional situation in

Lomerio, and similar projects throughout Latin America. I show that a number of these problems are problems within community forestry in general. The purpose is to assess how indigenous common property resource systems can best be supported by aid and development agencies

Anthony Stocks and Gary Hartshorn (1993) describe a natural forest management project being conducted with the Yanesha Indians of the eastern Peruvian Amazon. USAID funded a forestry cooperative among the Yanesha. The project was similar to that in Lomerio. The Yanesha were loaned equipment and trained in a harvest/management technique called the strip-shelter belt system. This was a system that promoted natural regrowth by completely clearing narrow strips of forest, while leaving the surrounding forest intact (Stocks and Hartshorn 1993). The cooperative received equipment for cutting down and transporting logs, as well as sawmill equipment to process the logs into lumber. Each community participating in the cooperative has developed maps detailing land-use within the community, and has designated which areas would be reserved for logging. The community selects members to work as the cooperative "work group." The work group keeps track of the time it spends working, and they sell their logs to the processing plant. The payments for time worked and the logs are distributed among the work group according to community standards. Most communities designated that a part of the profit from the sales and wages should go to community concerns, such as school construction, textbooks, medicine, etc. Mirroring the situation in Lomerio, NGOs continued to subsidize the wages for the workers, and the sawmill has yet to turn a profit that can be returned to the participating communities. Stocks and Hartshorn state that

there is a strong sense of ownership and commitment by the cooperative members in the Yanesha project to the cooperative and to the concepts of forest management. This is being weakened the longer that the sawmill pays subsidized wages rather than payment for production (1993:132).

For the Yanesha the main obstacle to self-sufficiency has been outside of their control. Markets have not been as strong as expected, and political turmoil from guerilla movements and drug trafficking have complicated transportation in the area (research was conducted in the mid-1980s to early 1990s). The authors list the primary strength of the cooperative as rising from the relationship between the funding NGOs, USAID and the World Wildlife Fund (WWF), and the Yanesha (Stocks and Hartshorn 1993). The NGOs spent two years working with the Yanesha on issues that they listed as of concern to their communities: health, education, land-titling, and cultural preservation. USAID and WWF began by training interested members in accounting and basic business practices. They then spent two years training the cooperative members in the techniques of logging and forest management. So, a total of four years was invested before the equipment was handed over, and the project begun. In Lomerio, training did not occur until after the project had started and the sawmill was purchased. Both the outside organizations and the Chiquitanos have been playing "catch-up" in terms of training ever since.

Another case that resonates with the story of community-based conservation in Lomerio is the BOSCOA project in the Osa Peninsula of Costa Rica (Donovan 1994). The BOSCOA, or Osa Peninsula Forest Conservation and Management project, is an attempt to halt the rate of deforestation in southwestern Costa Rica by providing

sustainable land-use alternatives to the region's diverse inhabitants. This case does not involve an indigenous group, but it does relate to the questions of institutional analysis raised in Lomerio. The area is made up of farmers and gold miners who have migrated to the area since the 1960s from other parts of Costa Rica. By the mid-1980s rates of deforestation were reaching 5% of the land cover per year, as more and more people moved into the area (Donovan 1994).

World Wildlife Fund (WWF) decided to focus on developing grassroots-level economic alternatives to forest clearing. The key principle of the BOSCOSA design were: 1) they would work with existing community organizations or develop them, 2) local people would decide the alternatives in forestry or agriculture that they wanted, 3) BOSCOSA would provide technical assistance not money or wages, 3) BOSCOSA would work with the community organizations to attract financial investors (Donovan 1994).

While deforestation rates are still critical, BOSCOSA has been successful in strengthening local level institutions for resource management, encouraging regional cooperation and political linkages, and providing economic alternatives to communities (Donovan 1994). Donovan (1994) provides a number of lessons from the project. While the NGO goals concerned conservation and deforestation, the local farmers were interested in improving agricultural production. The NGO shifted its focus and began working with agriculture. This increased trust and confidence, and also allowed the NGO to determine which types of economic alternatives fit within existing productive systems. WWF spent four years working with the community organizations on local development

and production concerns before it initiated projects aimed at slowing deforestation and increasing natural forest management.

The primary obstacle to the success of the project has been land tenure. The farmers were migrants to the area who "squatted" on the land. Because they did not own the land, they farmed a property for a short time, and then moved on before conflicts with absentee landlords or the government occurred. WWF has tried to tie land-titling to incentives for natural forest management, but with little success up to this point (Donovan 1994).

Land tenure is not in question in Lomerio, but the case raises a number of issues. BOSCOA worked with the farmers on their concerns before they began to implement their own projects. Most of these concerns related to improving agricultural production. The people of Lomerio have been asking for assistance in agriculture since CICOL was formed, and the forestry project begun. Through the years, the scale of the forestry project has grown tremendously while efforts at improving agriculture have almost disappeared. This is a large reason for the lack of interest in the forestry project. They communities do not feel that their concerns and interests have been addressed, so they have not participated wholeheartedly. APCOB and BOLFOR could share responsibilities. BOLFOR could concentrate on the forestry project while APCOB helped to improve agricultural production. Now, there is considerable overlap in the responsibilities of the organizations.

According to Michael Richards (1997), the Plan Piloto Forestal in Quintana Roo, Mexico has been a successful example of community forestry. He says that the high

standard of technical assistance, aggressive marketing strategies, high value forests, local and regional political support, and strong community institutions have been the contributing factors (Richards 1997:109). Like the Chiquitanos, communal traditions, such as consensual decision making, have encouraged social cohesion and complemented management concepts. Again, one of the weaknesses listed for the project, was the initial ignoring of local interest in improving agricultural production. Richards (1997:109) says that this later led to less involvement in the forestry project, and undermined its goals of comprehensive involvement.

Other authors have raised concerns in community-forestry that are relevant to Lomerio. Becker (1999) describes a program to protect forests in southwestern Ecuador. The success of the project in promoting alternative land-use practices is seen as a result of the local peoples' understanding of basic ecological systems, and efforts to stimulate local interest in the resource. This was done primarily through in depth co-explorations of economic alternatives for land-use. An NGO worked with the local people to analyze potential land-uses, and their economic and ecological effects (Becker 1999). Local understanding of the underlying principles is one of the main weaknesses of the Lomerio project at present. MacDonald (1995) says that one of the main problems in a project developed with the Federation of Indian Organizations of Napo (FOIN) was institutional priorities. After an initial burst of enthusiasm, the community-forestry project moved to the details of planning, implementation, and conflict-resolution. At this point, the support of the organizational leadership diminished as they concentrated on national and regional political activities (MacDonald 1995). He suggests that it may not be possible for

organizations like FOIN (or CICOL in the case of Lomerio) to balance the institutional political priorities with the technical and administrative work needed to maintain momentum in a community-based project (MacDonald 1995:24).

Conclusion

This chapter analyzes the Lomerio forestry project using a framework of institutional "robustness." I also compare the situation in Lomerio with case studies of community forestry in Lomerio. Based on the discussions above, I now present a summary of the specific institutional problems that exist within the Lomerio project. The general problems are the lack of a sense of ownership in the communities, inadequate training, and institutional responsibilities. I detail specific problems in each of these areas, and provide recommendations for improvement.

The most serious problem in the Lomerio forestry project is the lack of a sense of ownership in the communities. Many people do not feel like the project is addressing their concerns and interests, nor do they have any say in the organization of the project. In Ostrom's model of "robust" institutions, I discuss the idea that in a large regional project, local components must have channels for providing meaningful input into decision-making. At present, the communities do not participate sufficiently in the process. The project should have a "nested" decision-making structure, with smaller components influencing larger components. This could be accomplished by breaking Lomerio into 4 or 5 regional councils that met regularly with CICOL to discuss problems and ideas.

The Chiquitanos do not have a history or tradition of commercial logging. It has only recently become a part of their economic base. Most people consider themselves farmers. The project should reflect this orientation. People in the communities repeatedly expressed the desire that APCOB and BOLFOR should work with local communities to improve agricultural production. This is clearly outside of BOLFOR's mission, but APCOB could shift the direction of their work. Presently, the goals of both organizations for sustainable forestry management are taking precedence over local concerns. Case studies with the Yanesha in Peru and BOSCOA in Costa Rica support the argument that local participation increases the sense of ownership and dedication to the goals of the project. In Lomerio, a truly participatory project would start with local objectives. This may involve moving substantial resources from the forestry management aspects of the project to agricultural production.

The wages paid by the project are also undermining a sense of ownership in the communities. Most people think of the project, CICOL, APCOB, and BOLFOR as employers, rather than as the administrators of their project. The Yanesha of Peru developed a system where "work groups" from each community are paid based on time and production. The money is distributed among the group according to their effort, and a substantial portion of the money is given to the community to pay for school supplies, medicine, or other needs that may exist (Stocks and Hartshorn 1993). A similar system could be developed in Lomerio to get communities as a whole involved and invested in the work.

The importance of certification for the future of the forestry project is not understood well within Lomerio. This reflects a certain amount of paternalism on the part of BOLFOR and APCOB. Certification is the cornerstone of the philosophy and organization of the project, but neither has worked to educate the people of Lomerio of its importance, or even what it means, and how it works.

On the Chiquitano side, CICOL holds all institutional responsibility for the project. They are not even the most experienced and knowledgeable local persons for this role. CICOL is consulted on larger administrative decisions, but they are not involved in the details of the project: writing forest management plans, creating budgets, marketing of timber, and managing the sawmill. Both CICOL and APCOB should move to transfer responsibility to the CTE, the group of younger Chiquitano forest technicians who are being trained as counterparts to NGO forest technicians.

The institutional structure of the project needs a mechanism for conflict resolution. CICOL spends a large percentage of its time resolving conflicts among community members and between communities and the outside organizations, all regarding the project. This takes valuable time and resources from its primary mission of representing the interests of Chiquitanos in national and international arenas. A committee independent of CICOL could be created that had authority to make limited decisions regarding pay and harvest schedules.

The forestry management project in Lomerio grew out of efforts and interests at the local level, but has since lost its base. The goals and objectives of outsiders have influenced the direction that the project has taken. Institutional reorganization is needed

to transform it into a project of Lomerio, rather than in Lomerio. This may mean starting over in a sense, reorienting the perspective of the project to reflect the needs and interests of the communities of Lomerio. The communities of Lomerio should be given responsibility and ownership of the project. CICOL should share responsibility for the project and conflict-resolution with other Chiquitano organizations, such as the CTE. Fundamentally, the organizations need to go back to the communities and find out what they want for the project, and make this the guiding directive. At present, the project is being pulled in three separate directions, driven by three different sets of institutional goals and objectives.

CHAPTER 6 CONCLUSIONS

Organizations of indigenous peoples have become dynamic forces in many areas of the world. The Chiquitanos, and others, are learning to maneuver and operate within national and international economic, social, and political systems. As a result, they are forcing states, supporters, and international development agencies to accommodate their legitimate interests. These changes are transforming the social and political landscape of areas throughout the world, presenting theoretical and methodological challenges to anthropology. Political ecology represents one of the ways in which anthropology is changing focus. The bounded, isolated community which was the hallmark of past anthropological studies no longer exists in a world transformed by the transnational spread of information, people, commerce, and communication. Political ecology recognizes that there are no isolated ecosystems and that everyone participates in a world system (Kottak 1999:25). This study of the Chiquitanos' situation illustrates that continued work in political ecology is needed to understand the dynamics underlying the continued struggles of indigenous organizations, the new approaches to development and resource management, and the role of human rights and environmental NGOs in mediating the relations between indigenous groups and international political and economic systems. This chapter briefly summarizes the major points discussed in the study, and suggests future directions for research.

Indigenous Organizations

The Chiquitano's case highlights the political strategies and alliances that are being used by indigenous organizations to fight for autonomy. Like CICOL, most of these organizations were founded to address specific social, cultural, or economic issues at a local level (Clay 1984). Once they have succeeded at this level, many focus on political issues in a wider context. As these organizations have matured, they have become more skilled in using political leverage to influence policy. The Chiquitanos have used international alliances to gain a forestry concession, and to further their case for land titling.

Indigenous organizations, such as CICOL, are learning to create flexible organizational structures which are able to respond to external pressures, but also allow for indigenous models of decision-making and political authority. CICOL has created an organization that works daily with government and non-government agencies, and at the same time is responsive to local needs. From an outside view, the Chiquitanos mirror, in style and organization, the hierarchical nature of Western institutions. Viewed from the inside, the organization is much more fluid, and authority more dispersed throughout the directorate.

My original research question focused on sorting the organizational characteristics of CICOL into those that were traditional, or have historically been found in Chiquitano communities, and those that have been adopted from the Western institutions that are increasingly impacting Chiquitano life. What I found was that the organizational forms, while unique, are representative of a Chiquitano response to a particular socioeconomic

context that is variable through time. The organization is defined by human/land relationships in its struggles with forestry management. It is also constrained by institutional relations with the state and with NGOs. All of these factors influence the organization's composition and structure. Changes in any of these relationships will likely lead to dramatic changes within the organization. The dynamic nature of the situation makes questions of tradition and assimilation irrelevant, as the organization transforms itself continually in response to particular situations.

Indigenous organizations are challenging states and international development agencies to rethink and restructure their economic and political relations with indigenous groups throughout the world. Knowledge of the organizational forms that these efforts are taking is important to policy-makers and supporters who are attempting to create political space for groups whom have long been left out of national and international politics.

For anthropology, there should be a recognition that indigenous organizations have agency. They are not passive. They have successfully challenged and changed the way that development and conservation is discussed and theorized by anthropologists and others involved in development. On a practical level, indigenous organizations have changed the way that development and conservation is planned and implemented. They are continuing to transform these processes. They have proven themselves adroit at capturing and using the resources of development aid in creative ways, linking their concerns and interests with ideological movements in northern countries.

Anthropology must also give attention to the role of ethnicity in the interaction between indigenous people and development. While development is bringing great economic and political change to many indigenous communities, ethnicity has provided a stabilizing effect and allowed indigenous peoples the power to dictate the terms and conditions of development. This dissertation has shown that the Chiquitanos take control over the forestry project and use it for their own ends. They accomplish this through CICOL's negotiations with the different organizations working in Lomerio, and through community participation, or lack of it, in development activities. Chiquitanos are choosing leaders that can move between indigenous and western worlds. Their use and understanding of the strengths of bi-culturalism is allowing Chiquitanos and other indigenous people to strengthen their own ethnic bonds and face the outside world with a more united front.

Development Organizations

As NGOs increase rapidly in Latin America, in numbers as well as political and economic influence, it is important to understand the implications of this development. The organizations working in Lomerio, both governmental and non-governmental, have succeeding in constructing a large, well-financed, well-managed forestry management project with the Chiquitanos. Both organizations, however, have failed in training the Chiquitanos to take control and manage the project.

The paternalistic nature of local community-NGO relations in development contexts worldwide has been recognized by many researchers (L. MacDonald 1995; Price 1994; Sundberg 1998). As in Lomerio, local participation is often limited to providing a

source of cheap labor so that development projects can be implemented more cheaply (L. MacDonald 1995). From the start, the project in Lomerio has been implemented according to the priorities of APCOB, BOLFOR, and the international financiers who provide the money. CICOL's role has been limited to organizing the different communities' participation in log extraction.

Many development workers acknowledge that it is difficult to break from the paternalistic mentality. APCOB is attempting to break the cycle by training young Chiquitanos in the CTE to take over management of the forestry project. This is easier said than done. One NGO representative admitted how little success the organization has had in encouraging community participation. "The people expect us to provide everything: trucks, money, and food. They want us to do the thinking." This has always been a challenge of development, and this study shows that many organizations are becoming more thoughtful and skillful in how they approach the problem.

One of the largest problems NGOs face is securing funding. Price (1994:53) found that NGOs spend the largest amount of their time preparing for funding evaluations. APCOB continually works on proposals, evaluations, and yearly reports to fulfill donor requirements. Funding termination is a constant, lingering threat.

The NGO dependence on external funds often forces them to implement international agendas that are far removed from the objectives or patterns of resource use of local communities (Derman 1995). APCOB manages money for Lomerio that is already earmarked for specific areas of forestry management. Even with the change from public to private financing of development, the projects are still donor-driven. APCOB

has some say in the design and orientation of projects, but donor agencies in northern countries control the purse strings, and therefore, set the agenda. Local communities have even less say in development, and are forced to negotiate power with the NGOs, who are mere intermediaries, and who are in similarly dependent relationships with the donors as are the local communities. CICOL and the Chiquitanos are constantly frustrated by their inability to transfer money from one aspect of the project to another. They have suggested moving funds from heavily funded areas, such as certification, to cattle production, but this is always rejected by APCOB who argues that the donors would not allow it.

Community-Based Conservation

Indigenous organizations have forced the development community to shift its approach from top-down projects to smaller projects that are community-based, and arise out of collaborative efforts between development agencies and the local people who are most impacted by development. As the situation in Lomerio demonstrates, community-based development still retains many of the problems that have always plagued development efforts. Paternalism dominates the relationship between the local people and development agents. Also, there is often a lack of congruence between project goals and local values and sociopolitical institutions.

While in comparison to past approaches community-based conservation certainly has merit, there are problems that need to be addressed. As I discussed above, the goals and objectives of community-based conservation projects often originate outside of local communities. While the projects may be founded on the efforts of grassroots

organizations; the projects have a tendency to take on a life of their own. They often require people to reorient their conceptualization of land tenure, create new political institutions, and begin a much deeper participation in the market economy. "Donors and NGOs seek to introduce long-term conservation directions into societies governed by short-term need fulfillment and development imperatives" (Murphee 1994:423). The projects also create new levels of decision-making and sociopolitical arrangements, as in the case of CICOL, and in other development projects (Stocks and Hartshorn 1993; McDaniel 1995).

So this returns us to Escobar's (1991, 1997) question of whether anthropologists should become involved in development or not. This study has shown that many of the same problems that have always plagued development are still present. The direction of development is dictated from international aid agencies in northern countries. Paternalism is still a defining characteristic of the relationship between the agents of development (NGOs and government projects) and local communities. On the other hand, this study has also shown that indigenous organizations such as CICOL are becoming effective agents in shaping the direction of development. These organizations are creating effective strategies to shift power relations in development contexts. Whether anthropologists become involved in development or not, is not important to the Chiquitanos. The Chiquitanos want development to occur in Lomerio. They want schools and better health care. They want more production from their resource base. They only want a voice in how these objectives are reached. This is the point of entry for anthropologists. Anthropologists must look for the spaces of negotiation in the

relationship between the agents of development and indigenous organizations. They must support the powerful efforts of indigenous people to transform their identities in economic and political practices. Anthropology is uniquely situated to recognize the significant points of engagement between indigenous people and the many facets of development.

Conclusion

Admittedly, I was initially struck by the problems, the conflicts, the mismanagement, and the ineffectiveness that surrounded many activities in Lomerio. What I wasn't able to see were the dramatic accomplishments that had taken place before I arrived. The people of Lomerio and the project had set historic and political precedents in the creation of the project. I had not been around to witness the founding of CICOL and the beginning of a successful struggle for Chiquitano autonomy. I had not been there when Chiquitano residents, supported by the government, expelled timber companies who were logging illegally in Lomerio. What I saw was a project that had outgrown its own base and was showing the signs of over-extension. From my viewpoint, formed during a critical transition period in the life of the project, it was easy to focus on the failures. However, the strength and the will of the Chiquitano people are strong, and I believe it will eventually transform the present project into an example of a successful indigenous approach to self-reliance and socioeconomic integration. My criticisms are presented here in the hope that I may provide insights to those who are struggling so mightily to accomplish what many have deemed impossible. Macdonald (1995:24-25), speaking of the rise in indigenous organizations throughout South America, describes the

situation aptly saying, "These efforts should be recognized and applauded for what they are and where they have taken indigenous peoples, not elevated falsely or denigrated prematurely for what they are not."

LIST OF REFERENCES

- Acheson, J. 1975. The Lobster Fiefs: Economic and Ecological Effects of Territoriality in the Maine Lobster Industry. *Human Ecology* 3(3):183-207.
- Alarcon, R.B. 1994. Proyecto de manejo y aprovechamiento del bosque de Lomerio: Analisis de su impacto y de las condiciones sociales para la certificacion de la madera. Sello Verde: Santa Cruz, Bolivia.
- Albo, X. 1966. Jesuitas y culturas indigenas, Peru, 1568-1606: Su actitud, metodos, y criterios de aculturacion. *America Indigena* 16(2):249-308.
- Anderson, E.N. 1996. *Ecologies of the Heart: Emotion, Belief, and Environment*. New York: Oxford University Press.
- APCOB. 1996a. Plan de manejo forestal: Evaluacion del impacto ambiental zona norte del Lomerio. APCOB: Santa Cruz, Bolivia.
- APCOB. 1996b. Politicas y lineamientos para el trabajo con pueblos indigenas. APCOB: Santa Cruz, Bolivia.
- APCOB-CICOL. 1995. Proyecto forestal intercomunal Chiquitano de Lomerio. APCOB-CICOL: Puquio el Cristo Rey, Lomerio, Bolivia.
- Astuti, R. 1995. The Vezo are not a kind of people: Identity, difference and ethnicity among a fishing people of western Madagascar. *American Ethnologist* 22(3):464-482.
- Barreto, P., F. Amaral, E. Vidal, and C. Uhl. 1998. Costs and benefits of forest management for timber production in eastern Amazonia. *Forest Ecology and Management* 108:9-26.
- Bates, D.G., and S. Lees. 1996. Introduction. In, *Case Studies in Human Ecology*. D.G. Bates, and S. Lees, eds. pp. 3-12. New York: Plenum Press.
- Bebbington, A., and J. Farrington. 1993. Governments, NGOs, and agricultural development. *Journal of Development Studies* 29:199-219.

- Becker, C.D. 1999. Protecting a Garua forest in Ecuador: The role of institutions and ecosystem valuation. *Ambio* 28(2):156-161.
- Berkes, Fikret. 1977. Fishery Resource Management in a Subarctic Indian Community. *Human Ecology* 5:289-307.
- Biersack, A. 1999. Introduction: From the "New Ecology" to the New Ecologies. *American Anthropologist* 101(1):5-18.
- Bratton, M. 1990. Non-governmental organizations in Africa: Can they influence public policy? *Development and Change* 21:87-118.
- Brightman, R. A. 1987. Conservation and Resource Depletion: The Case of the Boreal Forest Algonquians. In, *The Question of the Commons*, B. McCay and J. Acheson, eds. pp. 187-202. Tucson: The University of Arizona Press.
- Bromley, D. 1989. *Economic Interests and Institutions: The Conceptual Foundations of Public Policy*. Oxford: Basil Blackwell.
- Bromley, D., and M. Cernea. 1988. The management of common property resources: Some Conceptual and Operational Fallacies. World Bank Discussion Paper, No. 57. Washington D.C.: World Bank.
- Bromley, D.W., D. Feeny, M.A. McKean, P. Peters, J.L. Gilles, R.J. Oakerson, C.F. Runge, and J.T. Thomson, eds. 1992. *Making the commons work: Theory, Practice, and Policy*: San Fransisco: Institute for Comtemporany Study Press.
- Brosius, J.P. 1999. Green Dots, Pink Hearts: Displacing Politics from the Malaysian Rain Forest: *American Anthropologist* 101(1):36-57.
- Browder, J.O. 1992. The limits of extractivism: Tropical forest strategies beyond extractive reserves. *Bioscience* 42(3):174-182.
- Brysk, A., and C. Wise. 1995. Economic adjustment and ethnic conflict in Bolivia, Peru, and Mexico. Woodrow Wilson Working Paper Series no. 216. Woodrow Wilson International Center for Scholars: Washington D.C.
- Buck, S. J. 1989. Cultural Theory and Management of Common Property Resources. *Human Ecology* 17(1):101-116.
- Bullock, S.H., H.A. Mooney, and E. Medina. 1995. *Seasonally Dry Tropical Forests*. Cambridge University Press: Cambridge.

- Cabarle, B., R.J. Hrubes, C. Elliot, and T. Synnott. 1995. Certification accreditation: The need for credible claims. *Journal of Forestry* 1995:12-16.
- Carroll, T.F. 1992. *Intermediary NGOs: The Supporting Link in Grassroots Development*. Kumarian Press: West Hartford.
- Castile, G.P., and G. Kushner, eds. 1981. *Persistent Peoples: Cultural Enclaves in Perspective*. University of Arizona Press: Tucson.
- Cerne, M. 1985. *Putting People First*. New York: Oxford University Press.
- Chambers, R. 1983. *Rural Development: Putting the Last First*. London: Longman.
- Chibnik, M. 1994. *Risky Rivers: The Economics and Politics of Floodplain Farming in Amazonia*. University of Arizona Press: Tucson.
- Clay, J.W. 1984. Organizing to Survive. *Cultural Survival Quarterly* 8(4):4-5.
- Cohen, G.B. 1984. Ethnic persistence and change: Concepts and models for historical research. *Social Science Quarterly*: 1029-1042.
- Conklin, B.A., and L.R. Graham. 1995. The shifting middle ground: Amazonian Indians and eco-politics. *American Anthropologist* 97(4):695-710.
- Costa, A.C., C.P. Kottak, R.M. Prado, and J. Stiles. 1995. Ecological Awareness and Risk Perception in Brazil. In, *Global Ecosystems: Creating Options through Anthropological Perspectives*. P.J. Putteney, ed. pp. 111-129. NAPA Bulletin 15. Washington D.C.: American Anthropological Association.
- Cox, P.A., and T. Elqvist. 1991. Indigenous control of tropical rain-forest reserves: An alternative strategy for conservation. *Ambio* 20(7):317-321.
- Crush, J. 1995. Introduction: Imagining Development. In, *Power and Development*. J. Crush, ed. pp. 1-9. New York: Routledge.
- Denevan, William, and Christine Padoch, eds. 1988. *Swidden-Fallow Agroforestry in the Peruvian Amazon*. New York: NY Botanical Gardens, *Advances in Economic Botany* No. 5.
- Derman, B. 1995. Environmental NGOs, Dispossession, and the State: The Ideology and Praxis of African Nature and Development. *Human Ecology* 23(2): 199-215.
- Dewalt, B.R. 1994. Using indigenous knowledge to improve agriculture and natural resource management. *Human Organization* 53(2): 123-132.

- Dickinson, M.B., J.C. Dickinson, and F.E. Putz. 1996. Natural forest management as a conservation tool in the tropics: Divergent views on possibilities and alternatives. *Commonwealth Forestry Review* 75(4):309-315.
- Donovan, R. 1994. BOSCOA: Forest conservation and management through local institutions. In, *Natural Connections: Perspectives in Community-based Conservation*. pp. 215-234. Washington D.C.: Island Press.
- Elliott, C., and R.Z. Donovan. 1996. Introduction. In, *Certification of Forest Products: Issues and Perspectives*. V.M. Viana, J. Ervin, R.Z. Donovan, C. Elliott, and H. Gholz, eds. Island Press: Washington D.C. p. 1-10.
- Escobar, A. 1991. Anthropology and the development encounter: the making and marketing of development. *American Ethnologist* 18(4): 658-83.
- Escobar, A. 1995. *Encountering Development: The Making and Unmaking of the Third World*. Princeton: Princeton University Press.
- Escobar, A. 1996. Constructing Nature: Elements for a post-structuralist political ecology. In, *Liberation Ecologies*. R. Peet and M. Watts, eds. pp. 32-67. London: Routledge.
- Escobar, A. 1997. Anthropology and Development. (development theory)(anthropology-Issues and Perspectives: Sounding Out, New Possibilities. *International Social Science Journal* 49(4): 497-516.
- Escobar, A. 1999. After Nature: Steps to an Antiessentialist Political Ecology. *Current Anthropology* 40(1):1-30.
- Esman, M.J., and N.T. Uphoff. 1984 *Local Organizations: Intermediaries in rural development*. Cornell University Press: Ithaca.
- Feit, H.A. 1973. The Ethno-Ecology of the Waswanipi Cree; or, How Hunters Can Manage Their Resources. In, *Cultural Ecology*, B. Cox ed., pp. 115-25. Toronto: McClelland and Stewart.
- Fernandez, J. W. 1987. The Call to the Commons: Decline and Recommitment in Asurias, Spain. In, *The Question of the Commons*, B. McCay, and J. Acheson eds. pp. 150-168. Tucson: The University of Arizona Press.
- Fisher, W.H. 1994. Megadevelopment, environmentalism, and resistance: The institutional context of Kayapo indigenous politics in Central Brazil. *Human Organization* 53(3):220-232.

- Geertz, C. 1963. *Agricultural Involution*. Berkeley: University of California Press.
- Gill, L. 1987. *Peasants, Entrepreneurs, and Social Change: Frontier Development in Lowland Bolivia*. Boulder: Westview Press.
- Godoy, R. 1999. Private time preference, tenure security, and use of natural resources: A comparative study of four Amerindian cultures in Bolivia. Paper presented at the conference on Patterns and Processes of Land Use and Forest Change. Center for Latin American Studies, University of Florida, Gainesville, Florida. March 23-26, 1999.
- Gow, P. 1991. *Of Mixed Blood: Kinship and History in Peruvian Amazonia*. Clarendon Press: Oxford.
- Groves, M., F. Miller, and R.Z. Donovan. 1996. Chain of custody. In, *Certification of Forest Products: Issues and Perspectives*. V.M. Viana, J. Ervin, R.Z. Donovan, C. Elliott, and H. Gholz, eds. pp. 68-80. Island Press: Washington D.C.
- Guinart, D. 1997. *Los mamiferos del bosque semideciduo neotropical de Lomerio (Bolivia). Interaccion indigena*. Doctoral Thesis, University of Barcelona, Spain.
- Hames, Raymond. 1987. Game Conservation or Efficient Hunting? In, *The Question of the Commons*. Bonnie McCay and James Acheson eds. pp. 85-201. Tucson: The University of Arizona Press.
- Hardin, Garrett. 1968. The Tragedy of the Commons. *Science* 162:1243-48.
- Heath, D.B. 1959. *Camba: A study of land and society in eastern Bolivia*. PhD Thesis. Yale University.
- Heaton, K., and R.Z. Donovan. 1996. Forest assessment. In, *Certification of Forest Products: Issues and Perspectives*. V.M. Viana, J. Ervin, R.Z. Donovan, C. Elliott, and H. Gholz, eds. pp.54-67. Island Press: Washington D.C.
- Hendricks, J. 1991. Symbolic counterhegemony among the Ecuadorian Shuar. In, *Nation-states and Indians in Latin America*. G. Urban, and J. Sherzer, eds. 179-196. Austin: University of Texas Press.
- Horowitz, D. 1994. Development Anthropology in the mid-1990s. *Development Anthropology Network* 12(1): 1-14.
- Hviding, E., and G.B.K. Baines. 1992. *Fisheries Management in the Pacific: Tradition and the Challenges of Development in Marovo, Solomon Islands*. UNRISD, Discussion Paper #32.

- INE. 1992. Instituto Nacional de Educacion -Censo 1992. La Paz, Bolivia.
- Jackson, J.E. 1995. Culture, genuine and spurious: The politics of Indianness in the Vaupes, Colombia. *American Ethnologist* 22:3-27.
- Johannes, R.E. 1981. Words of the Lagoon: Fishing and Marine Lore in the Palau District of Micronesia. Berkeley: Univ. of California Press.
- Johnston, B.R. 1995. Human Rights and the Environment. *Human Ecology* 23:111-123.
- Jones, J.C. 1995. Environmental Destruction, Ethnic Discrimination, and International Aid in Bolivia. In, *The Social Causes of Environmental Destruction in Latin America*. M. Painter & W. Durham, eds. pp. 53-72. Anne Arbor: University of Michigan Press.
- Jones, J.C. 1997. Development: Reflections from Bolivia. *Human Organization* 56(1):111-120.
- Kane, S.C. 1994. The Phantom Gringo Boat: Shamanic Discourse and Development in Panama. Smithsonian Institution Press: Washington D.C.
- Kearney, M. 1996. Reconceptualizing the Peasantry: Anthropology in Global Perspective. Westview Press: Boulder.
- Kearney, M., and S. Varese. 1995. Latin America's indigenous peoples' changing identities and forms of resistance. In, S. Halebsky, and R.L. Harris, eds. *Capital, Power, and Inequality in Latin America*, pp. 207-231. Westview Press: Boulder.
- Kennard, D. 2000. Regeneration of Commercial Tree Species Following Controlled Burns in a Tropical Dry Forest in Eastern Bolivia. Ph.D Dissertation. University of Florida, Gainesville.
- Kiker, C.F., and F.E. Putz. 1997. Ecological certification of forest products: Economic challenges. *Ecological Economics* 20:37-51.
- Kirk, J., and M. Miller. 1986. Reliability and Validity in Qualitative Research. Beverly Hills: Sage Publications.
- Kleymeyer, C.D. 1994. Cultural traditions and community-based conservation. In, *Natural Connections: Perspectives in Community-based Conservation*. D. Western, R.M. Wright, and S.C. Strum, eds. pp. 323-346. Island Press: Washington D.C.

- Kottak, C.P. 1999. The new ecological anthropology. *American Anthropologist* 101(1):23-35.
- Krekeler, B. 1985. Historia de los Chiquitanos. Vol. 2, Pueblos Indigenas de las tierra bajas de Bolivia. Jurgen Riester, ed. APCOB: Santa Cruz, Bolivia.
- Linnekin, J., and L. Poyer. 1990. Introduction. In, *Cultural Identity and Ethnicity in the Pacific*. J. Linnekin & L. Poyer. eds. pp. 1-17. University of Hawaii Press: Honolulu.
- Macdonald, L. 1995. A mixed blessing: The NGO boom in Latin America. *NACLA* 28(5):30-35.
- Macdonald, T. (ed.) 1985. Native peoples and economic development: Six case studies from Latin America. *Cultural Survival Occasional Papers #16*: Cambridge.
- Macdonald, T. 1995. Latin American community-forestry and indigenous politics in the 1990s: Shifting concepts of land tenure and use. Paper presented at symposium, *Forestry in the Americas: Community-Based Management and Sustainability*, University of Wisconsin-Madison.
- McDaniel, J.M. 1997. Communal fisheries management in the Peruvian Amazon. *Human Organization* 56(2):147-152.
- McGinnis, M. and E. Ostrom. 1992. Design Principles for Local and Global Commons. *Proceedings of a Conference on Linking Local and Global Commons*. Harvard, April 23-25.
- McCay, B. 1980. A fisherman's cooperative: Indigenous resource management in a complex society. *Anthropological Quarterly* 53:29-38.
- McCay, Bonnie, and James Acheson eds. 1987. *The Question of the Commons: The Culture and Ecology of Communal Resources*. Tucson: Univ. of Arizona Press.
- McKay, J. 1982. An exploratory synthesis of primordial and mobilizationist approaches to ethnic phenomena. *Ethnic and Racial Studies* 5(4):395-420.
- McKean, M., and E. Ostrom. 1995. Common property regimes in the forest: just a relic from the past? *Unasylva* 46:3-15.
- Meggess, B.J. 1971. *Amazonia: Man and Culture in a Counterfeit Paradise*. Aldine-Atherton Inc: Chicago.

- Merry, F.D., and D.R. Carter. 1997. Certified wood markets in the US: Implications for tropical deforestation. *Forest Ecology and Management* 92:221-228.
- Metraux, A. 1942. The Native Tribes of Eastern Bolivia and Western Mato Grosso. Smithsonian Institution. Bureau of American Ethnology. Bulletin 134:114-134. Washington D.C.
- Meyer, C.A. 1993. Environmental NGOs in Ecuador: An economic analysis of institutional change. *Journal of Developing Areas* 27:191-210.
- Moore, J.R. 1981. Persistence with change: A property of sociocultural dynamics. In, *Persistent Peoples: Cultural Enclaves in Perspective*, G.P. Castile and G. Kushner, eds. pp. 265-289. University of Arizona Press: Tucson.
- Moran, E. ed. 1990. *The Ecosystems Approach in Anthropology*. Ann Arbor: University of Michigan Press.
- Moran, E.F. 1981. *Developing the Amazon*. Indiana University Press: Bloomington.
- Murphee, M. 1994. The role of institutions in community-based conservation. In, *Natural Connections: Perspectives in Community-based Conservation*. D. Western, R. Wright, and S. Strum, eds. pp.403-427. Washington D.C.: Island Press.
- Murphy, P.G., and A.E. Lugo. 1986. Ecology of tropical dry forest. *Annual Review of Ecological Systems* 17:67-88.
- Navarro, G. 1996. La vegetación de Lomerio. In, *Las Plantas Útiles de Lomerio*. T. Centurion and I.J. Kraljevic, eds. pp. 31-67. BOLFOR: Santa Cruz, Bolivia.
- Netting, R. 1981. *Balancing on an Alp: Ecological Change and Continuity in a Swiss Mountain Community*. Cambridge: Cambridge University Press.
- Nugent, S. 1993. *Amazonian Caboclo Society: An Essay on Invisibility and Peasant Economy*. Berg Publishers: Oxford.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Padoch, C. 1986. The Campesinos of Santa Rosa: History and ethnicity in an Amazonian community. Paper presented at the annual meeting of the American Anthropological Association, Philadelphia.
- Parejas, A., and V. Suarez. 1992. *Chiquitos: Historia de una utopía*. Sirena: Santa Cruz, Bolivia.

- Parker, E.P., ed. 1985. *The Amazon Caboclo: Historical and Contemporary Perspectives*. Williamsburg: Studies in Third World Societies Publication Number 32.
- Paulson, D.D. 1994. Understanding tropical deforestation: The case of Western Samoa. *Environmental Conservation* 21(4):326-342.
- Peet, R. and M. Watts. eds. 1996. *Liberation Ecologies, Environment, Development, Social Movements*. London: Routledge.
- Pinkerton, E. 1992. Translating Legal Rights into Management Practice: Overcoming Barriers to the Exercise of Co-management. *Human Organization* 51(4):330-342.
- Posey, D.A. 1996. Protecting indigenous peoples rights to biodiversity. *Environment* 38(8): 6-19.
- Posey, D., and W. Balee, eds. 1989. *Resource Management in Amazonia*. New York: NY Botanical Gardens, *Advances in Economic Botany* No. 7.
- Price, M. 1994. Ecopolitics and environmental nongovernmental organizations in Latin America. *The Geographical Review* 84:42-58.
- Putz, F.E. 1994. *Approaches to Sustainable Forest Management*. Working Paper No. 4. Center for Internal Forestry Research. Jakarta, Indonesia.
- Rappaport, R.A. 1968. *Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People*. New Haven: Yale University Press.
- Rappaport, R.A. 1990. Ecosystems, Populations, and People. In, *The Ecosystem Approach in Anthropology*. E. Moran, pp. 33-50. ed. Anne Arbor: University of Michigan Press.
- Redford, K.H., and C. Padoch. 1992. *Conservation of Neotropical Forests: Working From Traditional Use*. New York: Columbia University Press.
- Reed, R. 1997. *Forest Dwellers, Forest Protectors: Indigenous Models for International Development*. Boston: Allyn and Bacon.
- Reid, J.W., and R.E. Rice. 1997. Assessing natural forest management as a tool for tropical forest conservation. *Ambio* 26:382-386.
- Richards, M. 1997. Common property resource institutions and forest management in Latin America. *Development and Change* 28:95-117.
- Riester, J. 1976. *En busca de la loma santa*. Los Amigos del libro: La Paz.

- Riester, J. 1985. CIDOB: Model for indigenous organizations in the eastern Bolivian lowlands. In, *Native peoples and economic development: Six case studies from Latin America*. T. Macdonald, ed. pp. 126-145. *Cultural Survival Occasional Papers #16*: Cambridge.
- Riester, J., and B. Suaznabar. 1990. *Diagnostico del area III, Santa Cruz: Pueblo Chiquitano*.
- Rumiz, D.I., D. Guinart S., L. Solar R., and J.C. Herrera. In Press. Logging and hunting in community forests and logging concessions: Two contrasting case studies in Bolivia. In, *Conserving Wildlife in Managed Tropical Forests*. R.A. Fimbel, A. Grajal, and J.G. Robinson, eds. Columbia University Press: New York.
- Sanabria, H. 1973. *Breve historia de Santa Cruz*. Libreria Editorial Juventud: La Paz.
- Sawyer, S. 1997. The 1992 Indian mobilization in lowland Ecuador. *Latin American Perspectives* 24(3):65-82.
- Schlager, E., and E. Ostrom. 1992. Property rights regimes and natural resources: a conceptual analysis. *Land Economics* 68(3):249-262.
- Schmink, Marianne. 1987. The "rationality" of tropical forest destruction. In, *Lands At Risk in the Third World: Local Level Perspectives*. D. Little, and M.M. Horowitz, eds. pp. 368-382. Boulder: Westview Press.
- Schmink, M. 1995. La matriz socioeconomica de la deforestacion. In, *De bosques y gente: Aspectos sociales de la deforestacion en la America Latina*. M.P. Fernandez, ed. pp. 211-229. Cuernavaca, Mexico: UNAMCRIM.
- Schwarz, B. 1993. Tendencias del uso de la tierra en el departamento de Santa Cruz de la Sierra: Estudios de caso. Informe de consultoria para la Comision Internacional del Medio Ambiente. Santa Cruz, Bolivia.
- Silberberg, M. 1997. Evolution of assistance to grassroots organizations: The impact of linkage. *Public Productivity & Management Review* 20(4):432-445.
- Singh, S., and A. Khare. 1993. People's participation in forest management. *Commonwealth Forestry Review* 72(4):279-283.
- Smartwood. 1995. Informe de la evaluacion Smartwood de la Central Intercomunal Campesina del Oriente de Lomerio. Rainforest Alliance: Lomerio/Santa Cruz, Bolivia

- Smith, E.A., and B. Winterhalder, eds. 1992. *Evolutionary Ecology and Human Behavior*. New York: Aldine de Gruyter.
- Smith, R.C. 1984. Unity within diversity: Peasant unions, ethnic federations, and Indianist movements in the Andean Republics. *Cultural Survival Quarterly* 8(4):6-13.
- Smith, R.C. 1994. Community values, ethical choices, and economic development in indigenous Amazonia. Conference paper presented at Forest ecosystems in the Americas: Community management and sustainability, University of Wisconsin-Madison.
- Smith, R.C. 1995. The gift that wounds: Charity, the gift economy, and social solidarity in indigenous Amazonia. Conference paper presented at Forest ecosystems in the Americas: Community management and sustainability, University of Wisconsin, Madison, WI.
- Spicer, E.H. 1971. Persistent cultural systems: A comparative study of identity systems that can adapt to contrasting environments. *Science* 174:795-800.
- Sponsel, L. 1995. *Indigenous Peoples and the Future of Amazonia: An Ecological Anthropology of an Endangered World*. Tucson: University of Arizona Press.
- Stearman, A.M. 1973. San Rafael: Camba Town. Masters Thesis. University of Florida, Gainesville.
- Stearman, A.M. 1976. The highland migrant in lowland Bolivia: Regional migration and the Department of Santa Cruz. PhD Dissertation. University of Florida, Gainesville.
- Stearman, A.M. 1985. Camba and Kolla: Migration and Development in Santa Cruz, Bolivia. University of Central Florida Press: Orlando.
- Steward, J.H. 1955. *Theory of Culture Change*. Urbana: University of Illinois Press.
- Stocks, A., and G. Hartshorn. 1993. The Palcazu project: Forest management and native Yanesha communities. *Journal of Sustainable Forestry* 1:111-135.
- Stocks, A.W. 1978. The Invisible Indians: A History and Analysis of the Relations of the Cocamilla Indians of Loreto, Peru, to the State. Ph.D dissertation. University of Florida, Gainesville.

- Strobele-Gregor, J. 1996. Culture and political practice of the Aymara and Quechua in Bolivia: Autonomous forms of modernity in the Andes. *Latin American Perspectives* 23(2):31-47.
- Strum, S.C. 1994. Lessons learned. In, *Natural Connections: Perspectives in community-based conservation*. D. Western, R.M. Wright, and S.C. Strum, eds. pp. 512-523. Island Press: Washington D.C.
- Sundberg, J. 1998. Strategies for authenticity, space, and place in the Maya Biosphere Reserve, Peten, Guatemala. *Conference of Latin Americanist Geographers* 24:85-96.
- Tenenbaum, D. 1996. The Mexican miracle: Community forestry. *Business and Society* 39:47- 49.
- Thoms, C.A., and D.R. Betters. 1998. The Potential for ecosystem management in Mexico's forest ejidos. *Forest Ecology and Management* 103:149-157.
- Toledo Gutierrez, M. 1995. Estudio etnobotanico de los Chiquitanos de la zona de Lomerio en Santa Cruz, Bolivia. Tesis de Grado, Universidad Autonoma Gabriel Rene Moreno, Santa Cruz de la Sierra, Bolivia.
- Uphoff, N. 1992. Local Institutions and Participation for Sustainable Development. IIED Gatekeeper Series No. 31. London: LIIED.
- Urban, G., and J. Sherzer., eds. 1991. *Nation-states and Indians in Latin America*. Austin: University of Texas Press.
- VAIPO. 1997. Viceconsul de Asuntos Indigenas y Pueblos Originarios-Censo. La Paz, Bolivia.
- Vakil, A.C. 1997. Confronting the classification problem: Toward a taxonomy of NGOs. *World Development* 25(12):2057-2070.
- Varangis, P.N., R. Crossley, and C.A.P. Braga. 1995. Is there a commercial case for tropical timber certification? Policy Research Working Paper 1479. World Bank: Washington D.C.
- Vayda, A.P., and B.J. McCay. 1975. New Directions in Ecology and Ecological Anthropology. *Annual Reviews in Anthropology* 5:293-306.
- Viana, V.M., J. Ervin, R.Z. Donovan, C. Elliott, and H. Gholz. 1996. *Certification of Forest Products: Issues and Perspectives*. Island Press: Washington D.C.

- Wagley, C. 1953. *Amazon Town*. Macmillan: New York.
- Wagley, C. 1977. *Welcome of Tears: The Tariape Indians of Central Brazil*. Oxford University Press: Oxford.
- Wali, A., and S. Davis. 1992. Protecting Amerindian lands: A review of World Bank experience with indigenous land regularization programs in lowland South America. Washington: World Bank/Latin America and the Caribbean Technical Department: Regional Studies Program, Report No. 19.
- Wells, M.P., and K.E. Brandon. 1993. The principles and practice of buffer zones and local participation in biodiversity conservation. *Ambio* 22(2-3):157-162
- Western, D. 1994. Linking conservation and community Aspirations. In *Natural Connections: Perspectives in Community-based Conservation*. Western, D., R.M. Wright, and S.C. Strum, eds. Island Press: Washington D.C.
- Western, D., R.M. Wright, and S.C. Strum. 1994. *Natural Connections: Perspectives in Community-based Conservation*. Island Press: Washington D.C.
- Wilkie, J.W. 1982. U.S. Foreign Policy and Economic Assistance in Bolivia: 1948-1976. In *Modern-Day Bolivia: Legacy of the Revolution and Prospects for the Future*. J.R. Ladman, ed. pp. 210-284. Tempe: CLAS.
- World Bank. 1992. *The World Bank and the Environment*. Washington D.C.
- Wright, R. 1988. Anthropological presuppositions of indigenous advocacy. 17:365-90.
- Yasher, D.J. 1997. Indigenous Politics and Democracy: Contesting Citizenship in Latin America. Working Paper #238, the Kellogg Institute, Urbana-Champaign, Ill.
- Zarzycky, A. 1992. Delimitacion y uso del suelo pueblo Chiquitano. Cooperacion Financiera Gobierno Aleman, Santa Cruz, Bolivia.
- Zerner, Charles. 1993. Imagining Marine Resource Management Institutions in the Maluku Islands, Indonesia: 1870-1992. Paper presented at Community Based Conservation Workshop: Arlie, Virginia.
- Zerner, Charles. 1996. Telling Stories About Biodiversity. In *Valuing Local Knowledge: Indigenous People and Intellectual Property Rights*. S. Brush, and D. Stabinsky, eds. pp. 69-79. Washington D.C.: Island Press.


BIOGRAPHICAL SKETCH

Josh McDaniel became interested in the issue of natural resource management after growing up in a fishing family in Pensacola, Florida. Control of resources, resource depletion, and the issues of class, identity, and ethnicity that surround the politics of fisheries management in the United States have much in common with the resource management questions in the South American lowlands.

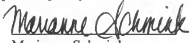
After graduating from high school in 1987, Josh McDaniel entered the anthropology department at Trinity University, in San Antonio, Texas. A brief flirtation with archaeology led to a trip to Ecuador. In the Ecuadorian highlands he became interested in cultural anthropology. He graduated from Trinity in 1991 and spent the next few years traveling, studying Spanish in Guatemala, teaching English in Japan, and working as a bicycle courier in Washington D.C.

He finally decided to get serious and entered the graduate anthropology program at the University of Florida in the Spring of 1993. He did his M.A. on community-based fisheries management in the Peruvian Amazon in 1995. Moving from fish to trees (following the lead of his wife, Deborah Kennard), he did his field research on community-based forestry management in Bolivia in 1997 and 1998. This dissertation is a result of that experience.

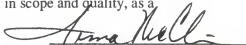
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Allan F. Burns, Chair
Professor of Anthropology


I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Marianne Schmink
Professor of Anthropology

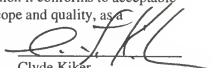
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Irma McClaurin
Associate Professor of
Anthropology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Allyn McClean Stearman
Associate Professor of
Anthropology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Clyde Kiker
Professor of Food and
Resource Economics

This dissertation was submitted to the Graduate Faculty of the Department of Anthropology in the College of Liberal Arts and Sciences and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May 2000

Dean, Graduate School